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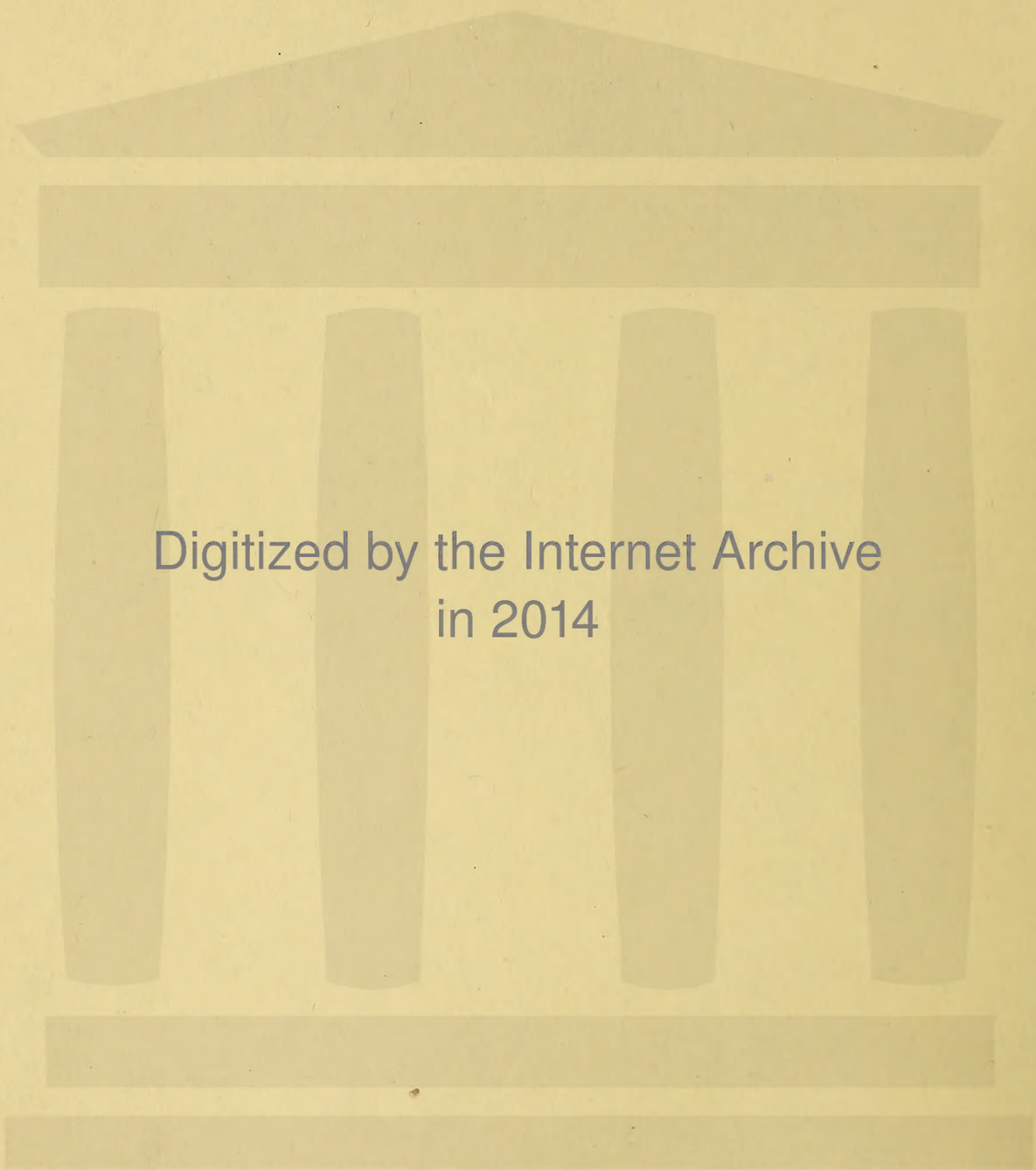

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PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

VOL. 2. PETERBOROUGH, ONT., JANUARY 1, 1882. NO. 1.

THE QUEBEC TRADE.

The Quebec *Times*, December 6th, says:—Whatever dulness may have been felt in Quebec in other branches, our lumber merchants and manufacturers have no reason to complain of the results of the season's business in their line. Though the shipments on the whole this year are less by about 100,000 tons than last year, owing to low rates of freight, the net profits of the season to the shippers will compare favorably with those of an average good year, while the lumbermen have reaped an exceptionally good harvest. Throughout the season prices have ruled high. In no article has a reduction taken place, and in the staple of white pine, both square and waney, values steadily advanced. As high as thirty-seven cents has been paid for first-class square timber, sixty to sixty-five feet average, and forty cents for first-class waney, twenty to twenty-one inches average. The last sale made in this market was a lot of Peter McLaren's square white pine, containing about 300,000 feet, at thirty-two cents for good quality, fifty-seven and one-half feet average, and twenty cents for common quality. This lot was sold to the same firm that bought the 500,000 feet of Grant's lately. The profits of the season, as we have said, though large, have been greater on the side of the lumberman than on that of the shipper, as a great deal of the timber was not previously contracted for and changed hands here after the rise had made itself felt. Our Quebec shippers, as a rule, are not speculative holders, nor in the slightest degree infected with the American mania for cornering, Brought up in the old school, they stick fast to the old traditions. Always content with a fair profit, they are exceedingly cautious about making large losses. That very absence of the speculative element, therefore, while it may prevent them from taking all the advantage possible to be derived from a "boom" in prices, is a very efficient safeguard against loss by undue depression. Thus it was that during the terrible five years of agony, when many of our most solvent institutions went to the wall, not one leading Quebec shipper, though the capital handled by them is larger, perhaps, than that handled in any other line, showed signs of tottering. And to-day the credit of those houses stands higher than it ever did. The indications for next year are favorable to a continuance of the present favorable rates. Stocks of deals and timber on the other side are light, owing to the small shipments this fall, and these small shipments were due to low rates, Had the shipments equalled those of last season, this market would have been completely swept of goods. Owing to light stocks on the other side, the demand there is active and holders are not anxious to sell. Square pine timber will, in all probability, hold its own next year, as the supply will not be above the average, even including timber stuck, and the immediate demand on the other side at the opening of navigation in the spring, even should that demand be only a moderate one, will sweep away all our wintered stocks. The oak wintering will be about an average of the last five years, but under the average of the last ten years' stocks, and is all held in a few strong hands. In this line, therefore, we look for steady prices, more especially as the production this winter will be moderate and the season has not opened favorably for lumbering operations. Of pine deals, the stock wintering is about an average one, while the cost of getting out logs this winter will be considerably higher than usual. Thus prices will, no doubt, rule higher next year. In spruce the prospects are also better, owing to improved demand. The last sale made was that of Breakey's deals, average mill cutting, 150,000 standard wintered, at $38 for 1sts; $27, 2nds; $23, 3rds, and $19, 4ths—very favorable rates. All those indications show that next year's business will be a prosperous one. Our Canadian merchants and manufacturers have the control of the markets in their own hands. All that is required on the part of both is to refrain from showing any undue anxiety to push sales. If they do this they will command their own terms.

TEN YEARS AGO.

It is a favorite statement with many at the present time that ten years ago the decadence of the pine supply, in ten, or at most fifteen years, was freely prophesied by those who were considered authorities on the subject, and the critics of to-day point with gleeful pride to the fact that, with facilities for manufacture doubled if not trebled, and a consumption not then imagined to be possible, the yearly production of lumber is still not decreasing, and the supply seems inexhaustible. That there is force in their argument that the prophets of a decade since were short-sighted, none will deny, but their hilarity over an ability to point to what has been loses much of its force when they neglect to take into account the changed conditions of the lumber trade, and refuse in the light of past experience, to give due recognizance to what is known of the present, and just as positively of the future.

Ten years ago the lumber supply of the Northwestern forests was measured from a vastly changed standpoint from that at which in the present it must be measured.

Then the forests of the country were estimated upon the basis of the amount of timber which would yield not less than twenty per cent. in grades above common. At that time government selections were neglected at government prices of $1.25 to $2.50 per acre, which would not cut at least 5,000 feet to the acre, of trees which would average three logs to the thousand feet of lumber, and no timber was worth cutting which measured less than sixteen to eighteen inches in diameter at the butt. It was on the basis of such large and excellent timber that the estimate of a ten to fifteen years supply was based. Ten years ago the present logging district of Michigan was almost, if not wholly, unknown, and did not, in but the slightest degree, enter into the mind or calculation of him who prophesied. At that time as little was known of northern Wisconsin as of northern Michigan. Ten years ago not a railroad penetrated into what is now the great timber-producing section of each of the states mentioned. Such a thing as a logging railroad had never entered into the calculation of a lumberman, and streams which are now running out yearly the millions of feet of log supply which feed the rapacious mills of the Northwest, were looked upon as unavailable creeks, the waters of which were by far too scanty to warrant their use in log running. Dams were an unthought of adjunct to log running almost as much as at first was the suggestion to lumber by railroad. Ten years ago only the best trees were taken by the lumberman, and the majority of the pine on a lot was left to its own destruction by fire and tornado.

Ten years ago such pine as entered into the calculations of the statistician was considered dear at $1.50 to $2 stumpage, and he was looked upon as a crank of the first "water" who considered such lands a good investment for a future advance on those figures. Now let us see how far wrong, from the only standpoint then available, were the prophets of a decade ago. How much good pine is now standing in the territory which was the subject of their calculation? In all candour the reply must be, Not enough to supply the mill capacity, which existed at that time, with a single year of stock. From the existing facilities for observation, the old prophets must be accredited with a remarkably correct appreciation of the timber supply. It is true that they failed to appreciate the fact that the country was growing at a rate which not even the shrewdest student of political economy could have imagined, and that, in consequence, an unknown and unexplored country would be developed, thickly covered with pine forests. In this they lacked judgment to as great an extent as do their present critics regarding the developments which an age of scientific discussion and inventive genius will bring forth during the decade before us. "Hind sight" is far more reliable in affording data upon which to point out the mistakes of a past generation than is foresight with regard to the future. The mistake of those who made the calculations which are criticised, was in lack of knowledge of an unknown region whose resources were not imagined, and as well in limiting the supply of pine to that better quality which was at that time alone of commercial value. But that mistake can no longer be made, and those who argue from the short-sightedness of the past that the prophets of the present are as well in error, base their assertions upon a false premise. The eye is no longer stretched into the vista of an unknown and unexplored region. We no longer underestimate the value of the smaller and coarser timber. The explorer has gone in and taken possession of the farthest foot of land on which a pine tree can by any possibility be found. The lumber statistician no longer limits his calculation to the largest and most thrifty timber, but sees a value and an appreciable quantity in the smallest trees which point skyward.

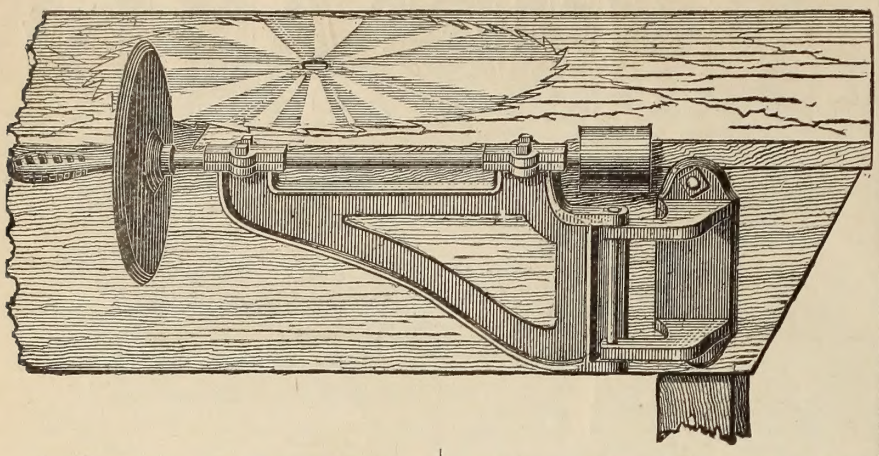
Without entering now into any argument as to what the actual quantity of the standing pine of the Northwest is, or is not, or how long it will last with present facilities and knowledge of dams on small creeks, or cheap railroads where water is not available, the *Lumberman* simply wishes to say a word in vindication of the judgment of those who prophesied ten years ago, and to submit that, from the only standpoint then available, their predictions have been fairly realized.—*Northwestern Lumberman.*

Australian Forests.

The Australian colonies are discovering the importance of taking steps to preserve their forests from further destruction, not only on the ground that the timber should be protected, but in order to prevent losses in the water supply. Evils which attend the destruction of trees are already felt in many provinces in an increased dryness of climate, longer droughts, and more numerous bush fires. During the 38 years ending in 1868 the average annual destruction of the New Zealand forests was 23 per cent., and in the five succeeding years 20 per cent. It is proposed in South Australia that a block of 200,000 acres be reserved for systematic tree-planting, and that in the first year $70,000 be expended on it, and in each of the 11 following years $52,500, a total expense of $650,000. After the first five years there would be, it is estimated, a revenue from periodical thinnings of $175,000, and in 21 years the colony would possess 310 square miles of forest.

To Prevent Belts Slipping.

Experiments made in the United States with a view to discover the best way of transmitting power by means of leather belts, have led to the conclusion that the effectual way to prevent the slipping of the belts is to cover the pulleys with leather. From this it would appear that leather on leather offers a certain steadiness, and with the further advantage that the belt does not fly off, and wears out less rapidly than when it runs on iron or wood. It is stated that in a steam-mill with five run of millstones, each set ground twenty-seven bushels a day after the pulleys were covered with leather, being from three to four bushels more each day than before.



THE EMERY WHEEL

HODGSON'S PATENT SAW-GRINDER.

PATENTED IN THE UNITED STATES MARCH 19TH, 1878, AND IN CANADA JUNE 8TH, 1878.

It is estimated that there are in the United States and Canada about 42,000 saw mills, running about 140,000 saws, and that to keep these saws sharp requires the cutting away of over 200 tons of tempered steel each year. How to accomplish this Herculean task the most rapidly, the most cheaply, with the least expen diture of muscular effort, and with the least damage to a saw, has long been a vital question among the mill-owners of this continent.

The file, the burr gummer, the punch gummer, the grindstone, and the emery wheel has each had its turn. The file has been found too expensive in itself, and too laborious in use, except for merely pointing up the teeth. The burr gummer has been found subject to the same objections, with the additional one, that it is very poorly adapted to any of the work to be done except throating out the teeth of large circular saws. The punch gummer has long been condemned as liable to strain and weaken any saw, and as entirely unfit to use on a circular. The grindstone has had to stand aside on account of the rapidity of its wear, and the difficulty of keeping it in proper shape, to say nothing of the discomfort in using it, leaving in undisputed possession of the point, for there is no fact in the whole range of the economy of mechanics better established than that a well made and well mounted emery wheel will cut away tempered saw plate more rapidly, more cheaply, more easily, and with less damage to a saw, than any other tool.

To do good work on any but the smallest saws, *the wheel must move to the saw*, and not the saw to the wheel, and it should have two motions, one allowing it to move in to the saw the *depth* of the tooth, and the other allowing it to move along the saw the *length* of the tooth.

There have been several saw grinders combining these two motions placed on the market, but they have all been large and complicated affairs, and so expensive as to put them entirely out of the reach of any but the owners of the larger establishments, so that the want of the great body of the mill-owners of this continent has been, up to the present time, a really good practical Saw Grinder at a moderate price.

This want is fully met by the machine represented in the engraving at the beginning of this article. It is bolted, as seen at the right hand, to a bench, similar to the small workbench, only part of it being shown in the cut. The saw, whether a long saw or circular, lies on the bench in such a position that the flat side of the wheel shall give the proper hook to the teeth. The whole of the machine, except the piece bolted to the bench, swings on a hinge or joint, seen under the pulley ; this motion allowing the emery wheel to work into the saw the *depth* of the tooth, while the arbor is so long that it has about three inches of end play in its bearings, this motion allowing the emery wheel to work along the *length* of the tooth.

The arbor may be belted from either above or below, but that part of the belt running *on* to the pulley must run vertically, or "plumb," and as the pulley is fair over the hinge on which the machine swings, the swing of it has no tendency to throw the belt, even if it is swung square out from the table, and the most rapid movement that can be given to the arbor length ways will not throw the belt, which steadily leads on to the crown of the pulley on the arbor, while it traverses the driving pulley, which should be about six inches wide, and perfectly flat on the face. The emery wheel is secured to the arbor by a tight and a loose collar and nut, in the usual manner. The arbor extends through this nut some three inches to the left, and on this is fitted a small pipe or sleeve, somewhat like the pipe on a carriage axle, and on one side of this pipe is cast the handle, seen in the engraving. By means of this handle the operator can place the wheel to the saw with the greatest accuracy and with perfect ease. Indeed, holding the handle so near the wheel, without the intervention of any lever or counterweight, and without having to move any considerable weight of material, he gets the *feel* of what the wheel is doing better than with any other Grinder, and no one offers him a better chance to *see* his work.

The design of this grinder combines, with its other excellencies, elegance and strength, and every part of it is made in the most careful manner. The arbor is of steel, and runs in very long chilled bearings. The pulley and collars are turned both inside and out, so that the arbor is in such perfect trim that it runs without a tremble.

A large number of mill owners in Canada and the United States are using this grinder with great satisfaction, and there is no doubt that its simplicity, its efficiency, and its cheapness will soon bring it into universal use. It is manufactured in Weisport, Pennsylvania, and in Amherst, Nova Scotia. For further particulars address the inventor and patentee, T. Hodgson, Amherst, Nova Scotia.

QUEBEC EXPORTS AND STOCKS.

The following is the annual circular of J. Bell Forsyth & Co., dated Quebec, 15th December, 1881 :—

We have again the pleasure of publishing our Annual Statements, which at this particular period must prove of great interest to all engaged in the Timber Trade of Canada.

The arrivals from sea of sailing vessels have not equalled our expectations, while a steady increase is perceptible in the number of deal shipments by ocean steamers from this port as well as from Montreal. The comparison with last year being as follows, viz.:—

	Sailing Vessels.	*Steamships.*
1881.....	643 .. 498,870 tons.	233 .. 383,818 tons.
1880.....	895 .. 706,346 "	261 .. 407,737 "

We also note that 459 sailing vessels, 380,186 tons (lumber laden) cleared at this port for sea against 634 vessels, 555,451 tons, in 1880.

We had the satisfaction last year of congratulating the manufacturers on the marked improvement in our trade and on the remunerative prices then realized, and in our annual circular we remarked :—"The trade of this port is in a sounder and more satisfactory state than it has been for years." The experience of the past season, together with the further advance in some woods, prove that our statements were in every way justified, and a correct view of the state of things then existing. We have again the pleasure of reiterating our congratulatory remarks, and are convinced that the trade has never been in a more healthy or in a better position than at the present time.

WHITE PINE.—The market did not at first open with that briskness and great demand that was looked for, and a few rafts in market and to arrive were purchased at moderate figures ; but as the spring shipments were being completed it became evident that the stock on hand was unusually small, and new timber was eagerly bought up, in some cases before the rafts had left the Ottawa district. A lull occurred in August, and for a time little business was transacted, but it was of short duration, and subsequently prices were paid for choice rafts such as never before had been given. We may here mention that in some instances 39 cents to 40 cents for waney board, and 35 cents to 37 cents for square in the raft was paid, the purchasers having of course to bear all loss from culls and defective wood as well as the expense of putting the timber in shipping order. It may be said that such high prices may bring about an overproduction, but our shippers and consumers in Great Britain must bear in mind that the trade is in few hands, the manufacturers being in most cases men of very considerable means, who will not dispose of their timber unless they obtain good figures, and who find it more difficult each year to procure choice wood. The greatest care and attention was paid last winter in the selection of timber, in some instances miles of timber limits were traversed to hunt up good and choice trees ; and after all a great falling off in the percentage of first-class was noticeable in rafts generally, though some few exceptionally fine ones were placed on the market. The supply this year has been under the average of past years, though in excess of 1880, and it is estimated that if the present winter is favorable for manufacture, an increased production may be looked for, should all reach market next season ; this is certainly to be desired, seeing that the present stock is so light, and scarcely sufficient for spring requirements.

The local consumption has been fair all season, and since the great conflagration which occurred in June last, a further demand for building timber of every description has arisen, a portion of which the present stock must supply up to next June or July.

		Supply.	*Export.*	*Stock.*
1881	Square..	6,029,041	9,101,880	4,526,102 Squ're
	Waney..	3,065,274		1,519,950 Wan'y
1880	Square..	4,244,285	11,552,560	6,197,318 Squ're
	Waney..	2,235,500		797,346 Wan'y

RED PINE.—This year's production has been considerably over that of last year, the increase being entirely in small and inferior wood, a good deal of which is unfit for shipment and will only suit local requirements. Large and choice wood is becoming scarce on most limits, and has been in good request all season. Of this description the quantity in stock is very limited.

	Supply.	*Export.*	*Stock.*
1881.....	1,945,720	922,000	2,145,833
1880	1,056,167	1,433,200	1,372,572

OAK.—Notwithstanding that the quantity measured to date is over the manufacture of 1879 and 1880 put together, this wood has maintained its price for choice parcels, though inferior and common is difficult of sale. The scarcity of good wood and enhanced cost of production forces manufacturers to hold their timber, unless something like our highest quotations are realized. The estimated production of good oak is light, and to date the weather has been most unfavorable for the manufacturers.

	Supply.	*Export.*	*Stock.*
1881.....	2,994,477	1,883,360	1,916,622
1880.....	1,790,236	2,316,840	656,026

ELM.—The supply has been slightly over that of last year, the shipment fair and the stock wintering below the average. It is difficult to procure good rock elm, the trees being scattered and the prices asked for standing timber so high, that unless full rates can be obtained the production for this market must be greatly curtailed.

	Supply.	*Export.*	*Stock.*
1881.....	1,027,670	797,160	499,912
1880.....	937,283	1,041,800	237,610

ASH.—Of this wood a good deal of small inferior has come to market, and we warn manufacturers to get out nothing but good white ash. Large and good wood is in request at our quotations.

	Supply.	*Export.*	*Stock.*
1881.....	408,798	355,680	210,101
1880.....	245,480	293,520	136,317

BIRCH AND MAPLE.—The production has been light, the export about an average one, and the stock reduced. These woods are more easily obtained than those already dealt with in these remarks, and the supply for some years to come must depend to a certain extent on the rates offered.

	Supply.	*Export.*	*Stock.*
1881.....	151,774	293,880	65,423
1880.....	594,314	558,840	176,693

STAVES.—Both pipe and puncheon have been in great request, and towards the close of the season unusually scarce. This branch of our trade has greatly decreased during the past ten years, and a large proportion of the business has fallen into the hands of Americans, which used to be transacted at this port. With the high prices now ruling we hope for a revival in this line of our commerce.

		Supply.	*Export.*	*Stock.*
1881	Pipe.....	418	480	226
	Puncheon.....	671	602	280
1880	Pipe	196	392	206
	Puncheon	488	921	271

PINE DEALS.—Compared with 1880 the supply has been about a million standard short, the exports also show a diminution of nearly two millions standard ; this latter has arisen from the limited tonnage obtainable since September The demand for deals up to July was not active, but since that date a better feeling has prevailed. The increasing consumption in the United States will absorb a large quantity of sawn lumber and thus diminish the future supply of deals.

	Supply.	*Export.*	*Stock.*
1881.....	4,252,285	3,876,187	1,708,597
1880.....	5,320,000	5,823,263	1,626,158

SPRUCE DEALS.—The short supply of 1881 was caused by the lowness of the waters prevailing until late in the season, which prevented logs from reaching the mills. The export is some 200,000 standard less than it was in 1880, and the stock wintering is about an average of the last five years. Deals have commanded fair prices throughout the season.

The American demand for lumber at high figures continues.

	Supply.	*Export.*	*Stock.*
1881.....	1,590,487	3,097,342	810,028
1880.....	3,500,000	3,200,130	515,110

FREIGHTS opened at about 24s. timber and 60s. deals to Liverpool, 25s. timber and 60s. deals to London, 22s. timber and 60s. deals to Clyde, closing at 24s. 6d. timber, 67s. 6d. deal to Liverpool, 71s. deals to London, and 24s. timber to Clyde.

Creosoting Cross-Ties.

Colonel A. Hanson, superintendent of the Texas Central railroad, has had creosoting works constructed at Houston, for treating cross-ties, with a capacity of 760 pieces a day. The reservoir tanks are three in number, and will contain 4,000 barrels of crude oil. The cost of this oil is eleven cents, in Galveston. The cost of each tie, when creosoted, is $1,10. The tanks are constructed of brick and Portland cement. The timber is loaded upon low tramway cars. These are drawn by machinery and an endless chain into the reservoir cylinders, which are then sealed, and the process is therein completed, after which the cars are withdrawn. In the yards of the company are immense quantities of bridge timber and ties awaiting treatment. One of the advantages of this process is the fact that the common loblolly pine, which is regarded of so little value, and which exists in such immense quantities in eastern Texas, and throughout many parishes in Louisiana, is the most suitable wood for creosoting, as it requires an open, porous timber and rapid treatment.

A LADY'S EXPERIENCE.—Mrs. T. A. Gist, No. 1204 Walnut street, Philadelphia, Pa., writes : "I had inflammatory rheumatism very badly. In one foot and ankle it seemed to have taken hold with the determination to stay some time ; and the morning I obtained the St. Jacobs Oil I could not put my foot down to the floor, even for an instant. I used it that evening for the first time, and the next morning for the second time, and that afternoon put my foot down for several minutes. On Sunday following I could stand up and walk a few steps. On Tuesday could walk about my room, and went down stairs by holding on to the banisters. Now I can walk quite well, and there is very little pain left. Just think ! one bottle and a half and I am almost free from pain. It is a wonderful medicine.

A CURE FOR CROUP.—Apply flannel saturated with Hagyard's Yellow Oil and administer the oil internally on a little sugar as directed on the bottle. Yellow Oil cures rheumatism, burns, scalds, chilblains, lameness, and all flesh wounds. All dealers supply it, only 25 cents.

SURE CURE FOR A COUGH.—The most reliable remedy for a cough or a cold, asthma, shortness of breath, sore throat, weak lungs and all bronchial troubles, is Hagyard's Pectoral Balsam. Price 25 cents.

F. E. DIXON & CO.

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LEATHER BELTING

First Prize, Provincial Exhibition.....Ottawa, 1875
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First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition..... Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

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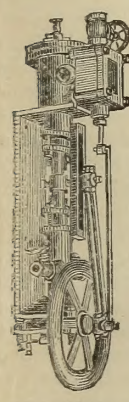

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ENGINEERS AND FOUNDERS,

MANUFACTURER OF

Steam Engines, Rotary Pumps, of all sizes, for Paper and Pulp Mills, Steam Pumps, and a Variety of other Pumps, Propeller Engines for Yachts & Tow Boats.

1L19

Iron Railings, Hoisting Machines for Stores, Jack Screws, Park Mills, all kinds of Machinery for Mines, Saw Mills, Flour Mills.

St. Paul St., QUEBEC.

Transferring Wood-graining.

Mr. Benjamin C. Smith, of Searsport, Me., has patented an improved apparatus for transferring wood-graining; also applicable to transferring any desired design formed by an engraving or otherwise upon a plate or block of wood or other material. By this invention the natural graining of wood may be transferred to any desired surface, without applying the color by which the transfer is made to the pattern, so that the depressions of said pattern can never become filled, and the pattern can be used an indefinite number of times. The pattern, which should be a distinctly grained piece of wood, is fixedly supported upon a block or carrier having at its opposite ends rollers, one of which is pressed outward by a spring for the purpose of keeping a band, arranged to pass around said rollers, taut. This endless band may be of rubber-coated cloth, and it is made to travel over the pattern, so that on color being applied by a brush to the outer surface of the band, and a rubber presser being made to bear the latter down on the pattern, the color will be removed from the raised surfaces of the band and a copy of the graining of the pattern in color will be left on the band. The device at one of its roller ends is then placed against the surface to which the graining is to be transferred, and the block or carrier moved over said surface.—*Scientific American.*

TYPHOID fever is reported as raging in the Pennsylvania lumber camps. In one camp 16 men out of 50 were attacked, but there have been but few deaths.

A LADY'S WISH.—"Oh, how I do wish my skin was as clear and soft as yours," said a lady to a friend. "You can easily make it so," answered the friend. "How?" inquired the first lady. "By using Hop Bitters, that makes pure, rich blood and blooming health. It did so for me as you observe."—*Cairo Bulletin.*

HAGYARD'S PECTORAL BALSAM will cure coughs, colds, asthma, croup, whooping cough, sore throat, bronchitis and all lung complaints that lead to consumption. Price 25 cents.

NO IMPOSSIBILITY.—People often say, when suffering in the first stages of Consumption, or suffering from lung disease, if their physician fails to effect a cure, "my case is a hopeless one, and my enjoyment of health again is an impossibility." The celebrated French Count Mirabeau's nasty temper is well known. "Monsieur le Comte" said his secretary to him one day, "the thing you require is impossible." "Impossible" exclaimed Mirabeau, starting from his chair, "never again use that foolish word in my presence." It is well-known that N. H. Downs' Vegetable Balsamic Elixir has brought to health and strength thousands who were told by doctors that their recovery was impossible. Be not deceived by any apparent impossibilities; always use the Elixir.

AT Shell Lake, Minn., sprinklers to wet down the roads are being devised, so that the water shall freeze and make a slippery way for the logging sleds. Verily it is well said logs will be gotten in, snow or no snow.

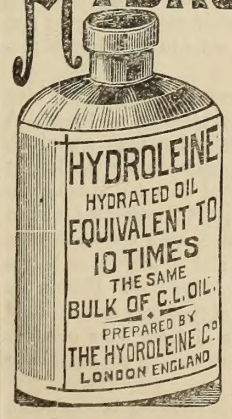
THE Menominee *Herald* says that the Kirby Carpenter Co. operate 30 camps and employ 700 men, 200 horses, 120 mules and 50 yoke of oxen. The Company will bank 60,000,000 feet of logs this winter. The L. W. & V. S. Co. have over 500 men, 300 horses and mules, and 30 yoke of oxen, This Company will put in nearly 50,000,000 feet of logs and will operate 26 camps.

THE *Northwestern Lumberman* says it would be strange if eventually the country should largely depend upon Mr. Seward's sub-Arctic purchase for a timber supply. Rev. Mr. Jackson, known as the "Bishop of the Rocky Mountains," recently returned from Alaska, and has been lecturing in New York concerning that country. He estimates that the timber supply of that almost unknown region is equal to the entire growth of all the timber bearing lands in the eastern and northwestern states. Ample water-ways make it possible to get it to the seaboard, one river being navigable for 2,000 miles.

HYDROLEINE

(HYDRATED OIL)

An artificially digested Cod Liver Oil.



For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

—o—

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

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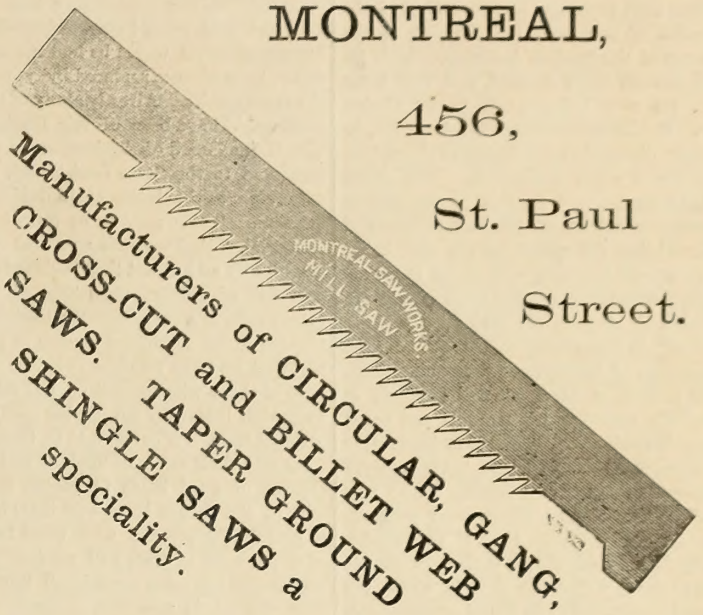

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General Mill Supplies always on hand.

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1L20

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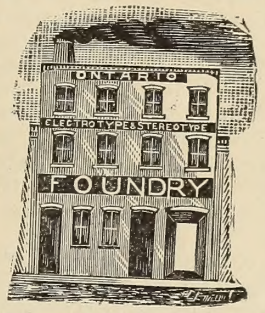

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☞Orders from the Country Promptly attended to.
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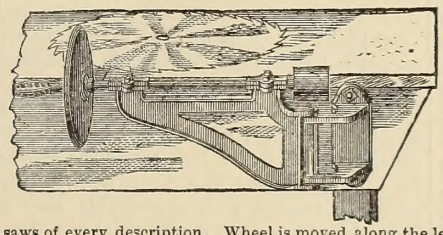

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Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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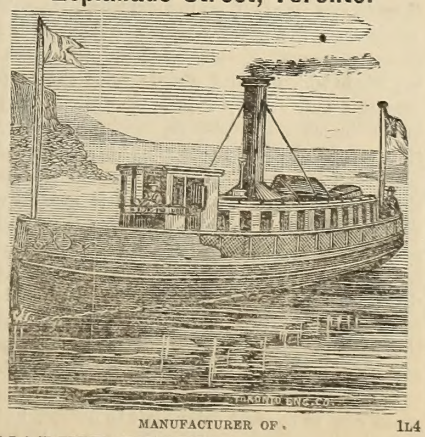

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(A Medicine, not a Drink,)

CONTAINS

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THEY CURE

All Diseases of the Stomach, Bowels, Blood, Liver, Kidneys, and Urinary Organs, Nervousness, Sleeplessness and especially Female Complaints.

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Will be paid for a case they will not cure or help, or for anything impure or injurious found in them.

Ask your druggist for Hop Bitters and try them before you sleep. **Take no Other.**

D. I. C. is an absolute and irresistible cure for Drunkeness, use of opium, tobacco and narcotics.

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FORESTRY IN CANADA.

The following paper by A. T. Drummond appears in the proceedings of the Montreal Horticultural Society :—

Perhaps no trade question has around it at the present time so much interest as that of the conservation of our forests with a view to the continuance of the lumber industry. This industry has once more revived, and very large demands are now being made on our timber supplies. Public attention cannot, however, be too strongly directed to the fact that these timber supplies are not unlimited. The drain which has been going on for thirty years past on the resources of our forests has been so vast and so continued that the questions are now being forced on us—for how long a time *can* these resources be depended upon, and what efforts are being made to provide for that supply being continuous? It is perfectly clear that under the present system of farming out the public lands, the time is near at hand when the supply of merchantable standing timber will not equal the demands made upon it, and it is imperative that at once means should be adopted to preserve and recuperate these timber lands. Those who are familiar with the localities—each year extending farther northward and westward—where the lumbermen obtain their logs, cannot be blind to the fact that the area in which the pine may be expected to be found of merchantable size and in fair abundance, is not so extensive but that another few years of working the timber limits to the extent done in the past, must result in a marked diminution in our exports of white pine. It is not with timber as with other agricultural products. Reproduction cannot take place in a year or a decade. It must be recollected that not until the pine is from seventy-five to one hundred years old is it of good merchantable size for square timber, and that thus at least three-quarters of a century would be required to make these timber limits what they were. And what has been the experience in Maine and Michigan? The pine forests of both these states were thought to be inexhaustible, and gave employment to many thousands of men. Bangor, on the Penobscot, was one of the busiest spots in New England—so many mills lined the river banks, and so many vessels frequented the port for lumber. Now the scene is largely changed. The pine lumber manufactured there has fallen from 102,000,000 feet in 1850 to 63,000,000 feet in 1866, and to 14,000,000 feet in 1877, whilst the total production of pine, spruce and hemlock boards was not in 1877 one half in amount what it was in 1866. Again, in Michigan, the Saginaw Valley is being rapidly depleted, and to supplement the supply to its numerous mills, whose capacity is 600,000,000 feet, logs have to be brought from other large rivers long distances away. But most important of all is the fact that the lumber journals of the Western States admit that in the three States of Michigan, Wisconsin and Minnesota—the main sources of lumber supply in the West—there does not, with the present demand, remain of standing pine timber sufficient for ten years to come.

Even greater destruction has resulted from forest fires, not only by reason of the immense areas through which the fires sweep, but because both large and small trees are alike destroyed. Another incidental but most important result arises in the fact that after forest fires, the first growth always consists of poplar, birch and other trees, though whether the pine, which is of slower growth, gradually in the course of long years, asserts its position and overshadowing these, in turn replaces them, is a question which observation has not yet had time to settle.

Tree planting has not yet impressed itself on the people of Ontario and Quebec as an idea necessary to carry out. Hitherto, the ambition of most farmers appear to have been to clear the land as soon as possible, and to be content if enough of wood suitable for fuel and farm use is left. Whilst lumber was cheap and the supply appeared almost inexhaustible, it would not appear necessary to most land owners to provide for the future. Besides, men are selfish, and are disinclined to go to labor and expense in regard to what does not promise immediate results, the advantage of which they will not themselves reap. And yet if we revert to the condition of the Ontario Peninsula, as it was fifty years ago, abounding in splendid walnut, whitewood, pine and oak trees, nearly all of which have been cut down long since, and when we remember the greatly increased value which, especially walnut, lumber now has, we cannot help seeing of what immense benefit to the rising generation it would be had the trees, as cut down, been at once replaced by young trees of the same species. Already many of these young trees would have been of fair marketable size. The Maine Board of Agriculture in a memorial presented to the State Legislature, very pointedly refers to the duties of individuals on this question. "Men need to be taught," says the memorial, "that we have no moral right to follow blindly an instinct that leads only to present personal advantage, regardless of widespread future evils as a consequence; that we are but tenants of this earth, not owners in perpetuity; and that we have no right to injure the inheritance of those who succeed us, but rather a duty to leave it better for our having occupied it the allotted time. Men need to be taught to plant trees and their children to plant and love them. Owners of good lands in Maine or elsewhere will in the future learn that their bleak fields, if judiciously planted with wood to the extent of 40 per cent. of area, will produce on the remaining 60 per cent. more in all kinds of crops than the whole now does or can be made to do under any other possible course of treatment. Lands well sheltered can and do produce winter wheat in Maine as well as in New England or on the new lands in the West." In accordance with this memorial, the State Legislature provided for exemption for twenty years from taxation of all cleared lands on which forest trees had been successfully cultivated for three years, and maintained in a thriving condition thereafter. Nearly all of the Northern and Western United States have in this way statutes to encourage the planting and growing of timber trees, and the effect of encouragement in this respect has in the Western States been most valuable.

Prof. Sargent, of Harvard University, tells us that "as moderators of the extremes of heat and cold, the benefits derived from extensive forests are undoubted, and that our climate is gradually changing through their destruction, is apparent to the most casual observer. Our springs are later; our summers are drier, and every year becoming more so; our autumns are carried forward into winter, while our winter climate is subject to far greater changes of temperature than formerly. The total average of snowfall is perhaps as great as ever, but it is certainly less regular and covers the ground for a shorter period than formerly. Twenty years ago peaches were a profitable crop in Massachusetts; now we must depend upon New Jersey and Delaware for our supply; and our apples and other orchard fruits now come from beyond the limits of New England. The failure of these and other crops in the older States is generally ascribed to the exhaustion of the soil; but with greater reason it can be referred to the destruction of the forests which sheltered us from the cold winds of the north and west, and which, keeping the soil under their shade cool in summer and warm in winter, acted at once as material barriers, and reservoirs of moisture."

The influence of belts of trees on local climate is, in fact, very marked. They form obstructions to and ward off, on the one hand, the cold winds from the north which would lower the temperature and, on the other hand, the parching winds which would unduly raise the temperature and equally injure vegetation; they break the effects of storms, and in the winter time cause the snow to be equally distributed over the fields, forming thus a uniform protective covering to the ground; and if generally distributed over the western prairies they will promote the more equal distribution of the rain fall, and will prevent the streams from being dried up, as they usually become after midsummer. Observing agriculturists have found that fields protected by belts of trees yield crops much more prolific than those not so sheltered.

In our timber regions the replanting of the pines can be to some extent left to nature, but there is every reason, since the timber limits belong to the Government, and a large annual revenue is derived from them, why the Government should, especially in the lands which have been burnt over by forest fires, institute a regular system of tree planting. There is all the greater reason for this because of the fact that after a forest fire, trees of different species from those which were previously there, usually spring up. The expense would be comparatively trifling, and certainly insignificant, when placed beside the results which posterity would derive from it. To individuals there may seem little inducement to plant pineries which may not be available to the fullest extent for towards three-quarters of a century, but governments can have no such feeling, considering that what would be done by them would be for the future benefit of the country and a source of revenue in that future as well. What the governments can and should also do is to, as far as possible, by legislation and the insertion of clauses in their leases of timber limits, prevent the occurrence of forest fires and preserve the younger trees from injury at the hands of the lumbermen. The experience which we are yearly realizing of gradually diminishing areas of timber supply and the now nearly exhausted condition of the United States pineries, make this matter a subject of pressing national importance which, if our legislators do not now take up, they will probably find twenty years hence that it is too late.

The question of tree planting must arise in our Northwest, and the sooner it is grappled with the better for the welfare of the future millions who are expecting to people the vast prairies west of Winnipeg. In the matter of fuel alone, its importance may be estimated from the fact that there are extensive tracts of western territory where the farmers journey from ten to twenty miles by waggon or sleigh in order to obtain fuel, or where they have to rely solely on the wood train which at intervals supply them; and such farmers are often exposed to positive suffering when extensive snow blockades take place. The prairie farmer, indeed, very soon understands the value of a belt of trees on his farm, not merely as a source of fuel and fencing, but even more as a wind-break, warding off the fierce blizzards in winter, and in summer sheltering his growing crops, fruit trees and stock from the strong prairie winds which, developing into storms, cause almost every season vast injury.

It is not at all improbable that the planting of forests on the prairies in Manitoba, Dakota and Iowa, will be the solution of that most embarrassing problem—the grasshoppers—by affording obstructions to the high winds which bring these insects from their habitats in the farther west, and by furnishing suitable homes for myriads of birds which would keep the grasshoppers in check.

The planting of forests will also probably solve the question of the successful growth of fruits in Manitoba and the Northwest. Fruit trees need protection alike from storms and from parching winds, and especially in our western prairie country is this necessary. It has been laid down as almost an axiom in the Western States, that the forest trees must precede the fruit trees in order to afford such protection.

In Minnesota an earnest effort has been made to encourage the planting of trees. A State Forestry Association has been organized, and annually offers premiums for the largest number of trees planted on a day in May, denominated Arbor Day. It is estimated that in the spring of 1877 there were 5,290,000 trees planted in Minnesota, and of these over half a million were put in on Arbor Day. During the entire planting season of that year it is believed that about ten millions of trees were planted, and of these, that about seventy per cent. have lived.

The question of tree planting is one which should be actively taken up at once in our Northwest. The Government of Manitoba could not grapple with a more pressing subject for legislation, unless it be drainage. The greatest drawbacks against which the Northwest has to contend, from an agricultural point of view, are wet lands, scarcity of timber, and liability to high winds, and, in some localities, to summer frosts. Dakota and Minnesota have equally these drawbacks. The Manitoba Legislature has taken up the question of drainage, and active efforts are now being made in some parts of the country to reclaim the wet lands. To cope with storms and frosts seems hopeless, and yet experience has found the great value of belts of trees around each farm as affording effective shields against these. What the Government there should do is to promote Forestry Associations, and to, in every way, encourage tree planting by exemptions from taxation or by direct premiums or bonuses. Any such encouragement successfully followed up will be returned one hundred fold in the larger and more certain crops, the store of wood for lumber and fuel created by the growing timber, the relief from the monotony of the prairie landscape through the belts of trees dotting the scene on every side, and not least, in a more contented and prosperous community of farmers.

ON THE UPPER ST. JOHN.

The St. John, N.B., *News* says there is plenty of snow in the woods on the Upper St. John and its branches, and the lumbermen are now fairly at work. There have been one or two days of soft weather since the heavy snow fall of a fortnight ago, which has rendered the country roads about and above Grand Falls almost impassable, but in the woods the snow was not removed to any great extent, This is a great advantage to operators in enabling them to distribute their supplies early and rapidly. The choppers are now making the frost-bound forests ring with their strokes, and the bean-pot sends forth its fragrance in daily incense offering to the powers that have smiled on the efforts of the lumberman.

Robert Connors, operator for Wm. Murray on the Allegash and St. Francis streams, this winter, has put in men and horses sufficient to handle 10,000,000 feet of spruce. Last year his operations in the same locality reached 18,000,000 feet. Mr. Connors made an effort to strike out a field for himself on Lake Temiscouata, but the high water in the streams kept the prospecting party from finding what could be done. Mr. Connors' operations are thus largely decreased. W. F. Fowler, of Fredericton, annually cuts from 10,000,000 to 20,000,000 feet for A. F. Randolph. This years his operations on the Salmon River and Tobique will not exceed 8,000,000 feet. Walker Stevens lumbers on the main St. John River for E. D. Jewett & Co., of St. John, this year, to the extent of about 10,000,000 feet. Messrs. Page & Mallett have a number of parties scattered along the main river and on the Allegash, whose combined operations will likely amount to 5,000,000 feet. W. H. Canliffe will cut 4,000,000 feet on the Allegash; W. B. West, 2,000,000 feet, on the Quisibis; Jarvis Hayward, 4,500,000 on the Fish River; Hopkins & Grant, 2,000,000 on the Wallagrass for Hayford & Stetson. It is thought parties working for Miller & Woodman in the vicinity of VanBuren will cut about 20,000,000 feet all told. The estimated total of the lumber on the Upper St. John this winter is thus 65,500,000 feet. This, however, does not include the operations on the Aroostook and Tobique, which are properly on the Upper St. John, and which will swell the aggregate to not less than 90,000,000. This is about three-fourths of the amount usually obtained, As soon as convenient the *News* will furnish an estimate of the lumber to be cut on these rivers.

Quebec Culler's Office.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to date :—

	1879.	1880.	1881.
Waney White Pine....	1,599,273	2,235,500	3,065,274
White Pine.....	2,507,729	4,244,285	6,029,041
Red Pine.....	741,499	1,056,167	1,945,720
Oak.....	835,993	1,790,236	2,904,477
Elm.....	336,461	937,283	1,027,670
Ash.....	47,161	245,480	408,798
Basswood.....	280	363	3,949
Butternut.....	70	645	3,033
Tamarac.....	6,691	30,889	27,150
Birch and Maple.....	121,224	585,464	151,774
Masts and Bowsprits...	50 pieces	4 pieces	51 pieces
Spars.....	26 pieces	23 pieces	
Std. Staves.....	171.5.3.7	195.7.1.1	418.9.2.26
W. I. Staves.....	169.2.2.26	487.7.0.8	595.7.2.19
Brl. Staves.....		10.8.2.10	

ALEXANDER FRASER,
Deputy Supervisor,

Quebec, Nov. 25th, 1881.

OTTAWA EXPORTS.

OTTAWA, Dec. 3.—The following official returns show the quantity and value of the exports of lumber during the year, and it will be seen by them that the value is somewhat in excess of the previous year, notwithstanding that the quantity shipped is less. This is owing, of course, to the increased price obtained for the lumber shipped this season :

	Quantity.	Value.
QUARTER ENDING MARCH 31ST.		
Hop poles	None.	$ 375
Ships' knees	621	358
Laths, Palings and Pickets, M.	9,750	2,436
Plank Boards and Joists, ft.	5,066,000	56,615
Shingles, M.	35	61
Sugar Box Shooks	22,754	7,751
		$67,579
QUARTER ENDING JUNE 30TH.		
Hop poles	None.	$ 228
Knees	391	267
Laths, Palings and Pickets, M.	8,571	9,657
Plank Boards and Joists, ft.	49,109,000	587,848
Sleepers and R. Ties	35,736	9,375
Match Blocks, cds.	497	2,333
		$614,583
QUARTER ENDING SEPT. 30TH.		
Plank Boards and Joists, ft.	69,184,000	$802,270
Match Blocks, cds.	209	838
Sugar Box Shooks	30,806	111,116
Sleepers and R. Ties	407,085	8,139
Laths, Palings and Pickets, M.	9,773	8,139
Knees	237	60
		$923,464
OCTOBER.		
Planks, Boards and Joists, ft.	19,677,000	$249,445
All other		5,405
		$255,150
NOVEMBER.		
Planks, Boards and Joists, ft.	15,207,000	$201,364
All other		7,002
		$208,366
Total value of exports of lumber from Ottawa from January 1st to November 30th, 1881, inclusive		$2,069,159
Total value of exports of lumber from Ottawa from January 1st to November 30th, 1880, inclusive		$1,981,557
Increase for 1881		$87,602

The exact quantity of the cut by mills in this vicinity during the season cannot well be ascertained. Most of the mill owners are now busy taking stock in order to give an estimate of their cut, but most of them are as yet unable to give even approximate figures. In nearly all cases, however, the cut will be found to be less than that of last year, owing to the scarcity of logs, caused by the lowness of the water in the Ottawa. Of the above, Eddy's mill cut 50,000,000 feet, Booth's 30,000,000, Sherman, Lord & Co., 12,000,000, McLaren & Co. 25,000,000, McClymont & Co. 15,000,000.

MIRAMICHI SHIPMENTS.

Two hundred and eighty-four lumber laden vessels cleared from Miramichi ports, having an aggregate tonnage of 176,150 tons; 142 from Chatham, and exactly the same number from Newcastle. The shipments from Chatham consisted of 62,892,000 feet deals, etc., 7,371,440 palings and 1,087 tons timber; the shipments from Newcastle, 59,772,000 feet deals, etc., 6,599,000 feet boards and scantling, 539,009 palings and laths, and 975 tons timber. The shippers from Miramichi were:—Wm. Muirhead, 19 vessels, 10,757 tons, 10,329,000 feet deals, and 84,200 palings; Guy, Bevan & Co., 53 vessels, 26,029 tons, 21,752,000 feet deals, 2,130,600 palings; J. B. Snowball, 53 vessels, 26,381 tons, 23,370,000 feet deals, 106,140 palings, 827 tons timber; A. Morrison, 17 vessels, 8,207 tons, 7,441,000 feet deals, 50,500 palings, 260 tons timber. The shippers from Newcastle were:—R. A. & J. Stewart, 90 vessels, 52,101 tons, 39,714,000 feet deals, 5,732,000 feet boards and scantlings, 295,000 palings, 459 tons timber; Geo. McLeod, 21 vessels, 12,044 tons, 11,166,000 feet deals, 349,000 feet boards, etc., 96,000 palings; D. & J. Ritchie & Co., 16 vessels, 6,526 tons, 6,482,000 feet deals, etc., 351,000 feet boards, 96,000 palings, 416 tons lumber; Geo. Burchill & Sons, 6 vessels, 5,205 tons, 2,410,000 feet deals, etc., 167,000 feet boards, 248,000 palings. The Messrs. Stewart, it will be seen, are by far the largest shippers from the Miramichi this year, and Newcastle has fairly forged ahead of Chatham as a shipping port. Newcastle shows an increase of about 7,000,000 feet in shipments, and Chatham a decrease of over 30,000,000 feet. —*Moncton, N.B., Times.*

ON THE SAGINAW.

The lumber season of 1881 is now fairly closed on the Saginaw river, and after a careful review of the same it may fairly be put down as one of the most successful for all concerned which has ever been known in the history of the business from its inception to the present time. Every one of the vast number of manufactories on the river since the commencement of operations in the spring has been uninterruptedly engaged, and a respectable number among them have been employed day and night, necessitating a double force of employees; and the result has been of the most satisfactory character to all concerned. The mills which have been employed on stock belonging to their owners have probably returned as great dividends on the capital invested as was ever known in the history of the mill business, while those which have been cutting stock for parties other than their owners, may also be credited with the most gratifying results. The prices for lumber realized at the opening of the season by the manufacturers were exceedingly satisfactory, and not only have they been steadily maintained throughout the season, but as the same progressed prices stiffened, and finally advanced perceptibly toward the close.

Notwithstanding the great activity of the mills on the river, and the enormous sales and shipments during the season, the demand has kept steady pace with the supply, thereby sustaining the buoyancy continually apparent, and finally culminating in a still healthier and more satisfactory condition, when navigation ceased, the result of which has been a slight advance on stock purchased within the past ten days for next spring's delivery.—*Lumberman's Gazette.*

A NEW MOTOR.

A locomotive is being built at the Grant Locomotive Works, Paterson, N.J., which will burn neither wood nor coal. The fuel will be water, which is decomposed in "association with carbon, forming readily combustible gases, of which hydrogen is the chief." The method of decomposing water at a low temperature, invented by Dr. Charles Holland, was first used as a motor in a common coal-burning locomotive on Long Island a year ago. It is now used practically in heaters and in illuminating houses, The water vapour is dissociated into its elements, oxygen and hydrogen, in the presence of the carbon of naptha gas at a temperature of 400 deg. c. As the hydrogen burns with a heat of nearly 8,000 deg. c., a gain is effected of 18-20 of the whole heat. The engine of course is constructed very differently from the common engine. What may be termed the "gas grate," consisting of four retorts, three feeder pipes and 352 burners, occupies the place of the grate and lower part of the fire box in an ordinary locomotive. The gas passes from the retorts to the feeders, and thence to the burners, and burns with a colorless and almost invisible light. The heat of 8,000 deg. c. is greater than any heat known, except that of electric light. The use of this fuel does away with smoke, cinders and sparks. It requires but little "firing up," as the touch of a lighted match is all that is necessary. The trial of this engine will be made soon after it is completed and tested. It is said that a railroad company has offered $1,000,000 for the right to use this process, provided that this engine will draw a train of four Pullman cars from New York to Chicago and return on schedule time.

LIKE A TREE.

A man is very like a tree,
For instance, crooked limbs has he,
He has a trunk; he grows somehow,
And when he leaves he makes a bough.
He can be cut; will often lean,
Is always sappy when he's green.
He is aboard when on the sea,
And oft a-shaving, too, is he.
When he is frightened quite a lot,
Like trees, he's rooted to the spot.
If he is axed too much he'll lie,
And often will, like trees, get "high."
He has his lumber in the night;
Is sadly warped, and feels the blight,
He "chips" for stakes, though he should not,
And has his chops, sometimes a lot.
He gets "deadwood" on him. Is wood.
Is knotty when he should be good.
And when he dies he's sure to learn,
That he, like trees, has got to burn.

Caledonian Hotel,
GRAVENHURST.
JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street within five minutes walk of Northern Railway station Bar kept with best assorted Wines, Liquors and Cigars Every attention paid to guests. Good Stabling. 1L10

Simcoe House,
CORNER FRONT and SIMCOE STS.
TORONTO, ONT.
Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms 1L21 WILLIAM HANCOCK, Proprietor.

The American Hotel,
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This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:
Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,
and every species of oppression of the Chest and Lungs. In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that
CONSUMPTION
is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry; then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all morbid irritations and inflammation from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,
IT HEALS THE ULCERATED SURFACES
and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent articles, which are also drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the cause, gradually destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price 25cts. and $1 per bottle. Sold everywhere.
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Travelling Agent.

MR. A. L. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

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Per line, for first insertion	10
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Advertisements intended for insertion in any particular issue should reach the office of publication at least three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. JAN. 2, 1882.

CUSHING & WRIGHT'S mill, about eight miles from Moncton, N.B., was burned to the ground on Thursday night, Dec. 8th. A large quantity of lumber was also destroyed.

MR. P. MCLAREN, who was in Kingston lately, said he would have to stop timber cutting on his limits, as he could not get it in the mild weather to the streams, and to lie on the ground it would become much injured. It is quite probable that the Caldwells will remove their Carleton Place and Almonte mills to Clyde, on the extension of the K. & P. Railway.

THE London *Timber Trades Journal* says that steamers from the Canadian ports, which a year ago were quite a novelty, are now becoming quite common. Three with pine deals from Quebec for account of Messrs. Bryant, Powis & Bryant have come forward lately, and there seems every prospect that the Quebec trade will be generally adopted by vessels of this class as the seasons progress.

MESSRS. EDWARD JACK and Robert Connors dispute the accuracy of some portions of a paper on the white pine, by Mr. W. H. Ballou, which was read by him before the American Association for the Advancement of Science, at Cincinnati, August 19, and was reproduced in our number of November 15th. They have therefore sent us a valuable communication, which will be found in another column, on the white pine of the St. John district of New Brunswick. These gentlemen are well qualified to speak on this subject. Mr. Connors is the most extensive log hauler on the St. John River, his stumpage bill last year being $32,000, and for thirty years he has been working himself on the head of the river, always getting large quantities of pine timber, when that was got on the river, the quantity now cut there being very small, as the trees have been nearly all cut away. Mr. Jack is lumber agent for the Province of New Brunswick, and was the explorer who selected the timber lands of Mr. Alex. Gibson, of Nashwaak. Thus they are excellent authorities as to the pine of that district.

A FIRE broke out in the saw mill owned by J. S. Snetsinger, of Moulinette, Ont., at about ten o'clock on Saturday night, Dec. 17th. The fire secured such headway inside the mill before any assistance could be had that it was impossible to save the building or any part of the machinery. The loss of J. S. Snetsinger on building and machinery will be $2,000, insured in the Queen Insurance Company for $600; S. W. Bisbee, cabinet machinery, lost $1,000, on which there is no insurance. The fire is supposed to be the work of an incendiary.

THE WHITE PINE.

BY EDWARD JACK AND ROBERT CONNORS.

The largest trees and the best quality of white pine on the St. John River, N.B., grew on the Arostook and its branches.

There are three kinds of white pine, which are probably the same tree at different periods of its growth, the difference in its appearance being caused by its age, as well as by the nature of the soil on which it grows. These three varieties are called by lumbermen, Pumpkin, or old pine, Bull Sapling, and Common Smooth-barked Sapling.

The pumpkin pine usually grows as a scattering tree, often alone, and sometimes it is found in bodies and clusters. It usually grows in the greatest quantities around the shores of lakes and on the banks of large streams, sometimes following small streams to their sources. It also occurs in valleys running into hill or mountain ranges. As you ascend ridges the pine usually becomes scarcer and more scattering. One sometimes, however, finds a lonely tree towering up like a giant on the summit of some lofty hill, where it may have braved the storms of northern winters from a date prior to the Norman conquest of Great Britain to our own times.

Pumpkin pine is much subject to hollow rots, the hole commencing at the butt, where it is frequently of large size, but it usually does not extend far up the trunk of the tree. Woodsmen call this junk rot. It is a dry rot, as the decayed wood can be taken out in lumps or sections of various weight when the tree is cut down. Hollow-heart, which is different from junk rot, runs much farther up the trunk of the pine, extending sometimes even to the branches. When a tree has either of the two above defects, the sound wood remaining is invariably free from shakes and of the best quality. The pumpkin pine is not so subject to "concase," a defect hereafter to be described, as the bull sapling or common smooth-barked white pine, and it is in general only found where pumpkin pine grows thick. The large wood ant is the gteatest enemy of the white pine. It attacks the tree either in its base or in the branches, where a case knot, which is caused by the decay of some small branch, occurs. Wherever there is a crack or crevice in the tree the ant will work his way in. There are generally rift shakes running through the heart of the very best pumpkin pines. This is the ants' grand opportunity, and they avail themselves of it. The ant seldom attacks any other tree than the pumpkin pine and fir, the former being on the St. John River a very soft wood, indeed softer, freer from sap, and better than the Michigan pine.

At certain seasons of the year the wood ants, or probably only the males, are winged; these wings they lose, and old timber makers say they have seen the ants carrying their wings in their mouths. These ants remain all winter in hollow or rotten places in the pumpkin pine, in a torpid condition. When the trees are being felled in winter, it is often the case that bunches of these frozen ants fall out of the holes, and it is no unusual thing for the genuine old pine timber maker (a race of men fast passing away in New Brunswick) to gather these frozen ants in his hand and eat them. They say that their taste is much like that of the cranberry. The usual age of the full grown and mature pumpkin pine is likely not less than 800 years, probably much greater. Its wood is very seldom shaky, unless when growing in very wet and swampy places.

BULL SAPLING.

This tree also loves the shores of lakes and streams, and its wood is harder and heavier than that of the pumpkin pine. It has a thick sap; this sap is thicker on trees which grow scattering among hardwoods on ridges, where the growth is more rapid than in low spruce lands, where the growth is slow. This tree is almost always more or less shaky at the butt. It is seldom hollow-butted. The best and least shaky trees grow upon the sides of ridges, where they stand exposed to the winds. The tops are usually large and sound, extending a greater distance from the trunk of the tree than do those of the pumpkin pine, although the branches of the latter tree are usually much larger in diameter than those of the bull sapling. The colour of the tops of these trees, when viewed at a short distance, is of a much darker green than those of the pumpkin pine. There are many shades of green in the colour of the leaves of the bull sapling, the best and thriftiest growth being of the darkest green. When a woodsman notices a yellow shade in the colour of the tops he suspects inferior trees, especially on low ground, and these are always shaky. The defects in the bull sapling arise principally from rots and shakes. It is seldom attacked by worms unless after it is dead.

CONCASES.

There are three kinds of "concases," the ordinary open one, the pitch and the blind. The open concase is a long and somewhat narrow depression in the side of the tree, the centre being hollow. On the outside of the tree, near the bark around the concase, the wood is sound, two or three inches from this sound wood the rot begins and spreads in every direction, both up and down the tree, frequently for a distance of from five to six feet from the concase. This does not extend around the tree; usually only about one-third of the way. It is the worst kind of concase.

The pitch concase forms a lump on the out side of the bark, and may be detected by the drops of pitch oozing from the spot. There are generally more than one, and frequently five or six of these on the one tree, generally on one side. The rot does not extend from these nearly so far as from the other two kinds, usually ending at a distance of from one to three feet from the point of their first occurrence in a pitchey wood, streaks from which may extend into the tree.

Blind concase can be detected in the growing tree by the eyes of the experienced woodsman only. The evidence of this defect is the occurrence of a small flat curl in the bark. There is usually no swell in the tree at this place. On cutting into the wood here to a depth of about two inches nothing remarkable is to be seen; cutting in, however, a few inches deeper, the wood appears yellow or dark, and impregnated with pitch. Cutting further in you come to a lump of black pitch, filling a cavity in the wood, which runs to the heart, the rot extending upwards and downwards from it, usually farther than in either of the other two kinds. Many are usually found in the same tree, rendering it completely useless. Sometimes a tree having blind concases in it is sound at the top and butt. When such is the case the timber maker frequently deceives the buyer by noticing on which sid the concase occurs, and where there is but one of these, hews his timber in such a manner that the concase occurs exactly at one of the angles of the timber. This has often been done on the St. John River, and the timber has passed inspection there and gone to Great Britain.

Another defect in the white pine is case knot. This consists of a hole two or three inches in diameter running into the heart of the tree, where it ceases. There is no rot accompanying it. It is caused by the rotting out of a limb, leaving its case, which is a hard rim, behind it. Black knots, which are not much regarded on the Upper St. John, are caused by imperfect growth of the tree.

The white pine is one of the thriftiest and healthiest trees which we have; even when half chopped through it will continue to grow vigor ously, and trees which are supported by a mere shell will grow well when the heart is rotten from end to end.

The first indications of death in the pumpkin pine and bull sapling appear at the top. When this is bare and barkless for a few feet it is a tolerably sure indication that the tree is worth less.

THE COMMON SAPLING PINE.

This is abundant everywhere, and generally constitutes a large part of the second growth in pine lands which have been burned, usually occurring with white birches and poplars. It is a tree of rapid growth, and in half a century after it starts from the sod, when growing in the soil most suitable to it, will make a good saw log from 12 to 18 inches in diameter. It grows best in light, gravelly soil. The wood of this tree is seldom shakey, though frequently coarse and knotty.

SHAKE.

The origin of this defect is uncertain. It is not caused by the action of the wind, since pine trees are always found more free from shakes when they grow high up on the hill sides among hardwood trees, where they are exposed to the severest storms, while those growing on flat land under hills, even in the most sheltered places, are always the most shaky. Wet soil and frost are probably the cause of shaky wood. On chopping into a pine growing in low swampy land in summer, water will frequently follow the axe. This water must exist between the rings of annual growth, and in the winter it forms ice. The expansion caused by freezing destroys the cohesion of the annual rings, and when the board which is sawn from the tree becomes dry the small cracks in the wood show themselves very distinctly, rendering it useless for many purposes.

QUEBEC STOCKS.

Our shipments show a decrease this year compared with 1880 of 97,017 tons of lumber, or nearly four million cubic feet; and in deals they show a decrease of 1,947,076 Quebec standard pine, and 102,788 Quebec standard spruce. The falling off in timber is chiefly in white pine, square and waney, which show a decrease of 61,267 tons. Red pine comes next with a shrinkage in quantity of 12,780 tons, and oak follows with a reduction of 10,837 tons. This heavy falling off in our exports would, at first glance, indicate a very unhealthy state of trade; but as we have already explained in a previous article, the prices obtained this year have been on the whole very satisfactory, and the season's business will furnish a profitable showing both to shippers and manufacturers, more especially the latter. In fact, during previous years, the English markets were overstocked and our lumbermen continued keeping up their usual supply in the expectation every year that the tide would turn. Finally the crisis reached its height, and production became greatly lessened. This, with the clearing off of stocks on the other side, has restored the market to a healthy tone, and the light exports this year are an indication that this healthy state of things will be continued at any rate next season. Compared with stocks wintering last year, white pine, square, shows a decrease of about 1,500,000 feet, but waney shows an increase of about 700,000 feet. Red pine shows an increase of about 800,000 feet, oak 1,300,000 feet, and elm 260,000 feet; and the quantity of deals wintering is very little different from last year. The supply getting out will not exceed that of last season. The probable supply of pine from Ottawa section will be,—white, 700,000, and red, 1,000,000 feet, about equal to last year's manufacture. The trade, therefore, shows a healthy outlook in these important particulars, light stocks on the other side, moderate stocks in ports, and a moderate quantity being got out. Our lumbermen have learned by experience the value of their limits, and understand that their safest course lies in husbanding their resources, and not cut down timber indiscriminately and recklessly, as was formerly the custom.—*Times.*

The Strength of Wooden Columns.

Some important tests of the strength of wooden columns, such as are in common use in the construction of cotton and woollen mills, have lately been made at the instance of Mr. Atkinson, President of the Boston Manufacturers Mutual Fire Insurance Company. The tests were made with the testing machine at the Waterton Arsenal. The formulas in use for computing the strength of wooden columns are based on tests applied to columns of about two inches on a side and four or five feet long. The new tests were made with columns of pine and

oak of the size and length used in actual construction. All but two were round, hollow columns, of from eight to eleven inches diameter, the two being about nine inches square. The greatest amount of pressure exerted in any case was about 265,000 pounds. The tests have disclosed frequent instances of defective boring in the columns. The object in boring is to open an air passage through the heart of the stick for the prevention of dry-rot after it is in position in the building. It is essential, of course, that the bore should extend from end to end, but this has not always been effected. The sticks were first bored from one end and then from the other, and the borings have sometimes failed to meet in the middle of the stick. The tests also show that to taper the sticks is a mistake, inasmuch as it weakens the column more than has heretofore been estimated. Reasons for exercising more caution in other respects in the construction and adjustment of wooden columns in building have also been disclosed.—*Scientific American*

Precautions Against Waste.

An Ottawa correspondent says that a new code of timber regulations for the Northwestern Territory has been promulgated, which it is thought will prove more satisfactory than those previously in force. Mr. Thos. Anderson, the timber inspector for the Northwest, will be vested with discretionary power to deal with questions arising under the Crown timber regulations without reference to Ottawa. Permits will still be required by persons cutting timber, but it is understood they will be chiefly formal and for the purpose of preventing waste, and to keep the wood in the control of the Government until the lands are surveyed and entered upon. The cost of a permit for a settler's building material is fifty cents, and rails cut for use on the place, and not for purposes of sale or speculation, free, and firewood for one's own use free. Cordwood cut for sale will be subject to a charge of fifteen cents a cord. Cutting timber to hold for speculation purposes without first obtaining the necessary permits, and destroying timber before the land is entered for, under the pretence of clearing the land for cultivation, is absolutely forbidden. The inspector has been instructed to take every precaution against waste.

Produce of Crown Forests.

From the reports of H. M. Commissioner of Woods and Forests, just published, we find the receipts from the sales of produce of Crown estates for the year ending March 31st, 1881, were as follows :—Windsor Park and Woods (timber, bark, poles, cordwood, &c.), £1,938 1s. 1d. ; New Forest, £8,360 11s. 6d.; Dean Forest, £6,377 10s. 2d.; Highmeadow Woods, £4,123 6s. 11d. ; Alice Holt Woods, £650 17s. 4d. ; Woolmer Estate, £148 14s. 6d.; Bere Woods, £939 17s. 9d. ; Parkhurst Woods, £343 12s. ; Stagsden Woods, Bedford, £349 2s. 3d.; Delamere Woods, Chester, £701 6s. 6d. ; Chopwell Woods, Durham, £49 8s. 9d.; Manor of English Bicknor, Gloucester, £6 2s. 2d.; Eltham Woods, £185 6s. 1d. ; Eltham Estate, Kent, £84 6s. ; Torver Woods, Lancaster, £4 19s. 4d.; Hazleborough Woods, £340 6s. 3d. ; Salcey Woods, Northampton, £888 19s. 1d. ; Egham Estate, £52 10s.; Esher Estate, £1 ; Esher Woods, Surrey, £582 11s.; Poynings Woods, Sussex, £28 3s.; Bishops Cannings, Wilts, £684.

Douglas Fir.

This king of forest trees, which is the pride of Oregon and Wasington Territory, makes the best ship timber in the world. A principal quality of the wood is a flexibility and tenacity of fibre rarely met with in trees so aged. It can be bent and twisted several times in contrary directions without breaking. Masts and spars made of Douglas fir are rare and exceptional for dimensions and superior qualities, such as strength, lightness, absence of knots, and other grave vices. Mr. Wilson Saunders was once ordered by the Lloyds to test the strength of all the woods obtainable for ship-building, and he reported that none of the woods approached the strength of the Douglas fir and pitch pine, it having required a weight of 280 pounds to break a small bar of these woods no more than an inch and a quarter square. Between the Douglas fir and pitch pine, whose strength was equal, there was this difference, that while the latter snapped short off, the Douglas yielded unwillingly, with a rough and long rend. Often 200,000 feet of Douglas fir is cut from one acre of land, and there is said to be enough of this timber in Washington Territory alone to supply the navies of the world.—*Northwestern Lumberman.*

The Duluth Cut.

The Lake Superior *News* says last winter there were cut in the district, of which Duluth is the centre, between 75,000,000 and 80,000,000 feet of logs. The latter figure, even, was much below the estimates made early last winter, because the season was extremely unfavourable. The deep snows, especially in the latter part of the winter, interfered very materially with work in the woods, and made logging expensive. Careful enquiry among our lumbermen enables the *News* to give reliable figures as to the probable cut of logs this winter. If we have an ordinary winter these figures will be found next season to have been nearly accurate, but should there be very little snow, then these calculations will be somewhat disturbed. We estimate the total cut at 183,000,000 feet, or more than double the cut of last winter. There is nothing extraordinary in this, considering the number of new mills either completed the past season or now under way. By next July the sawing capacity in this district will be double that of last spring, the most prominent new mills being those of the Duluth Lumber Co., G. W. Peck & Co., Sexsmith Bros., and the Oneota Lumber Co.

Lumber Receipts At Buffalo.

Receipts of lumber, etc., at Buffalo by lake during the month of November, and for the season of navigation, were :—

	Nov.	*Season.*
Lumber, ft	28,896,700	240,802,160
Lath, pieces	118,000	2,863,000
Shingles	7,745,000	25,249,000
Staves	190,000	3,886,275
Hoops		7,964,000

The lumber receipts for the stason of 1880 were 214,169,354, and for 1879, 202,443,612 feet.

ST. JACOBS OIL
TRADE MARK.

THE GREAT
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FOR
RHEUMATISM,
Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,
Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

No Preparation on earth equals ST. JACOBS OIL as a *safe, sure, simple* and *cheap* External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

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MANUFACTURERS OF
STEAM BOILERS.
NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.
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CANADIAN PACIFIC RAILWAY.
Emory's Bar to Port Moody.
NOTICE TO CONTRACTORS.
Tender for Work in British Columbia.

SEALED TENDERS will be received by the undersigned up to NOON on WEDNESDAY, the 1st day of FEBRUARY next, in a lump sum, for the construction of that portion of the road between Port Moody and the West-end of Contract 60, near Emory's Bar, a distance of about 85 miles.

Specifications, conditions of contract and forms of tender may be obtained on application at the Canadian Pacific Railway Office, in New Westminister, and at the Chief Engineer's Office at Ottawa, after 1st January next, at which time plans and profiles will be open for inspection at the latter office.

This timely notice is given with a view to giving Contractors an opportunity of visiting and examining the grounds during the fine season and before the winter sets in.

Mr. Marcus Smith, who is in charge at the office at New Westminister, is instructed to give Contractors all the information in his power.

No tender will be entertained unless on one of the printed forms, addressed to F. Braun, Esq., Sec. Dept. of Railways and Canals, and marked "Tender for C. P. R."

F. BRAUN,
Secretary.

Dept. of Railways and Canals, Ottawa, Oct. 24th, 1881.
12d10 1L3

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MANUFACTURER OF
The Patent Lever Feed Shingle, Box Board & Heading Machine
(Always takes First Prize.)
Rotary Saw Mills
IN FOUR SIZES, and other
MACHINERY for SAW and GRIST MILLS.
SEND FOR CIRCULAR.
CHARLOTTETOWN,
1L29 PRINCE EDWARD ISLAND.

MACK'S MAGNETIC MEDICINE.

Is a Sure, Prompt and Effectual Remedy for *Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Spermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs.* The experience of thousands proves it an INVALUABLE REMEDY. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is *the cheapest and best.* Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at 50 cts, per box, or 12 for $5, or will be mailed free of postage, on receipt of the money, by addressing

MACK'S MAGNETIC MEDICINE CO.,
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STEAM, SAW & SHINGLE MILL FOR SALE,
WITH
111 Acres of Land, Four Frame Houses, Etc.
Plenty Timber on Black River. Or. Mill and Limits two thirds cash. 1L2
T. COOPER, Cooper's Falls, Ont.

WANTED.
ABOUT
250,000 ft., board measure, of First Quality WHITE OAK TIMBER,
AND
100,000 feet of one-inch PINE BATTENS, for Car Sheeting.
For further particulars address P. O. Box 514,
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J. T. LAMBERT,
Lumber and Commission Agent.
FOR SALE.

150	Mlls.	White Pine,	1 x 10 Stock.
175	"	do	1 x 12 "
11	"	do	2 x 10 "
20	"	do	2 x 12 "
140	"	do	1 inch Siding
20	"	do	1¼ "
40	"	do	2 x 10 Joists.
16	"	Cedar,	3 x 6 "
19	"	Basswood,	1¼ inch.

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WELLINGTON STREET, OTTAWA.

WANTED.
Cherry, White Ash, Black Ash, and Dry White Pine Lumber.
Quote Price delivered, and Carefully Describe :—Quality, Widths, Length, Thickness, and how long awed.
ROBERT C. LOWRY,
Wholesale Lumber.
1L2 55 Pine Street, New York.

We have added to our plant all the latest improved machinery for Electro and Stereotyping, and the manufacture of Printers Furniture, facilities for executing work which no other establishment in the Dominion possesses, and not excelled by any on the continent. A large assortment of various cuts constantly on hand.
FLEMING & SON,
1L9 26 Colborne St., Toronto.

QUEBEC EXPORTS, 1880-1881.

The following Comparative Statement of Wood Goods shipped from Quebec and the Lower St. Lawrence from the opening to the close of navigation, during the years 1880 and 1881, is compiled from the Custom House Returns by the Quebec *Times* :—

Tons.	*London.* 1880-1881.		*Liverpool.* 1880-1881.		*The Clyde.* 1880-1881.		*East Coast England & Scotland.* 1880-1881.		*Ireland.* 1880-1881.		*Other Ports.* 1880-1881.	
Oak	2,949	2,316	22,631	16,011	10,758	9,374	10,534	10,192	1,568	1,619	9,481	7,572
Elm	2,935	1,893	4,142	2,916	7,435	5,721	6,738	5,292	1,002	674	3,773	3,433
Ash	2,567	2,513	1,055	1,753	1,397	1,975	1,515	1,530	307	313	497	808
Birch	5,422	2,058	1,118	382	1,537	1,071	3,907	1,914	617	496	1,370	926
Walnut	1,556	886	71	61	233	428	289	42	8	130	131	171
Hickory	197	208	1,097	845	225	187	249	427	117	113	11	239
White Pine	4,533	5,369	62,890	40,110	73,275	56,225	58,752	55,545	11,566	10,484	77,798	59,814
Red Pine	1,139	1,616	2,768	1,537	12,096	6,647	2,633	1,346	10,398	6,263	6,796	5,641
Total shipments	21,298	16,859	95,773	63,615	106,956	81,628	84,617	76,288	25,603	20,097	99,857	78,604
Pine Deals Quebec Standard	526,405	1,276,188	1,484,988	912,133	891,427	469,347	834,110	517,114	114,703	63,182	971,630	638,223
Spruce Deals	1,482,327	1,475,384	184,620	178,932	115,386	104,678	64,876	109,269	778,393	733,919	574,528	495,160
Pipe Staves, Mille	41½	56	53	45½	74½	53	23	8½	112½	177	87½	140½
W. O. W. I. "	98	143	195	150	428	143½	5	2	68½	47	126½	117
Lathwood, Cords		15	38	6	26	86	30	15	78	58	456	404

The total shipments of each kind of timber in each year were as follows :—

Shipments.	1880.	1881.	*Excess* 1880.
Oak, tons	57,921	47,084	10,837
Elm	26,045	19,929	6,116
Ash	7,338	8,892	
Birch	13,971	6,847	7,124
Walnut	2,288	1,718	570
Hickory	1,896	2,019	
White Pine	288,814	227,547	61,267
Red Pine	35,830	23,050	12,780
Total	434,103	337,086	98,694
Deficiency 1880 Ash		1,554	
" " Hickory		123	
			1,677
Net excess of shipments in '80 over '81			97,017

Shipments.	1880.	1881.	*Excess* 1880.
Pine deals, Quebec std	5,823,263	3,867,187	1,947,076
Spruce deals	3,200,130	3,097,342	102,788
Pine Staves, Mille	392	480½	
W. O. W. I. "	921	602½	318½
Lathwood	628	584	44

Statement of timber, staves, &c., wintering at the port of Quebec during the winter of 1881-1882 :—

White Pine, Square, feet	4,526,102
" Waney	1,519,950
Red Pine	2,145,838
Oak	1,916,622
Elm	499,912
Ash	210,101
Birch	51,092
Basswood	1,380
Tamarac, Square	8,986
" Flatted	21,678
Black Walnut	20,018
White Wood and Balm of Gilead	42,625
Butternut	2,240
Maple	14,331
Hickory	98,336
Cherry	2,415
Spruce	11,411
Hemlock	5,324
Stand. Staves, Mbl, M	214
" Cull	12
W. O. W. I. Mbl	141
" Cull	37
R. O. W. I. Mbl	97
" Cull	5
Barrel	10
Pine Deals, Mbl., stand	1,483,667
" Cull	224,930
Spruce, Mbl	743,437
" Cull	66,591
Plank, Pine & Spruce, 1, 1¼, 1½, & 2 in., ft	10,176,314
" Hardwood	71,433
Ash Oars, Pairs	none
Handspikes, Pieces	none
Red Pine Lathwood, cords	14
Hemlock "	150
White Pine Masts, Pieces	45
Red and White Pine Spars	106
Spruce Spars	676

Cheap Paint.

It is said upon good authority that those wishing to paint and protect inside walls of shops, factories or mills will find the following an excellent and cheap receipe, which will last much longer than any ordinary whitewash :—Three hundred parts washed and sieved white sand, 40 parts of precipitated chalk, 50 parts of resin, and 4 parts of linseed oil are mixed and boiled in an iron kettle, and then one part of oxide and copper and 1 part of sulphuric acid are added. This mass is applied with an ordi-paint brush while warm. If it is too thick it is diluted with linseed oil. This paint dries very rapidly and gets very hard, but protects the wood excellently.

PROTECTION FROM FIRE.

To the Editor of the Canada Lumberman.

LUMBERMAN'S CAMP, Dec. 10th.

MR. EDITOR,—It has been justly said that "He who causes two blades of grass to grow where one grew before, is a benefactor of mankind." In like manner it must be admitted that the Canadian who can check the destruction of millions of pine trees annually would be proportionately esteemed by his countrymen; and yet none of our public men seem to aspire to this distinction by devoting their time and talents to devising means to stay the ravages by fire in our forests, which are the greatest source of wealth belonging to us.

Every now and then a feeble cry is raised in condemnation of this species of vandalism, and warning voices are raised both by the press editorially and through its correspondence columns, pointing out whither we are drifting, and shewing the irretrievable loss we will soon have to deplore, but little or nothing is being done by those whose office it is to stay or check this scourge. True, the Ontario Legislature did a few years back pass a law for "the preservation of the forests from fire," but it has been a dead letter from the time it was entered on the statute book until the present day, for have not dreadful bush fires raged through the country, destroying immense tracts of wooded land, about as regularly as a dry season comes round, since those regulations became law, and can a single case be shewn where an offender against those regulations has been, or was even sought to have been, punished? and this for the simplest of all reasons, no one was empowered to see the law enforced, or rather to detect the offender!

We see our pineries disappearing before our eyes, mainly through fire, and know that their value, if preserved, would be greatly increased in another generation, yet we fold our hands, deplore the loss, but do nothing.

Money is spent lavishly in the endeavour to introduce new agricultural products, the cultivation of flax, the introduction of vineyards on a large scale, the replanting of forests, etc., etc., but to hold that which we have, and which is of ten thousand times more value to Canada, we do nothing! We value two birds in the bush more than one in the hand.

It is strange that a reform, so much needed, has so few, if any, advocates in Parliament. Why do not some of our talented and patriotic men take this matter up and compel the Government to protect the forests. Several representatives in the Dominion and Provincial Parliaments belong to lumbering districts, are perfectly aware of the loss to the country, and might readily point ont a remedy, that is a system to be adopted to check the waste occasioned by the ever-recurring bush fires. Some of them have sufficient talent and influence to make their voices heard and heeded. Whoever first takes this question in hand and follows it up persistently until the end, will be deserving of the country's gratitude.

Lumbermen themselves, whose influence has helped many a member to his seat, should unitedly urge their representatives to agitate this question.

The writer is too humble to hope for much success through his pen, and in writing to you, Mr. Editor, is prompted by a desire to induce others who know of and deplore the loss the Dominion is sustaining, to use their more able pens in urging the country to take this matter earnestly in hand.

If not trespassing too far I would point out a scheme which, from the observations of a lifetime passed in the woods, appears to me to be feasible.

Let a special department for the preservation of the forests be formed, under the present respective Commissioners of Crown Lands, if the case be taken up by the Provinces, and if not, by the Dominion Government. This department to have a chief at a sufficient salary, etc., to induce a competent man to accept the office. Under, and appointed by him, let there be a certain number of Head Inspectors, each having an extensive district to superintend, in about the same ratio as local Crown Land Agents are now established, indeed, the two offices might be combined. Under the head inspectors, fire inspectors might be appointed at the rate of one for each township, in the present "fire district." These men, as well as their superiors, should be sufficiently paid to induce men of good morality, some education, and thoroughly acquainted with bush life, to aspire to the place, and in the free grant districts might be allotted say 1,000 acres of land within their beat as a homestead.

The principal duty of the fire inspector would, of course, be to prevent fires from destroying the forests, and upon their success or failure in this should depend their retention of office; but besides, they should be perfectly familiar with every lot in their beat (when located in surveyed townships) and should report on each lot to the head inspector, whether fit for cultivation, how wooded, etc., and if located by a settler whether such settlement would endanger pineries adjoining. No pine lots should be open for settlement. Nor should squatters be *allowed* to settle down and make clearings without permission granted by the head inspector of the district, on his subordinate's report. The present or future settler should not be allowed to burn his fallow without a written certificate from the fire inspector, and one condition of obtaining a free grant should be the obligation of being guided by the fire inspector in matters of firing his fallow. As by far the most destructive fires are caused by river drivers, either in allowing camp fires to be left burning, or in setting out smudges to drive away the flies, inspectors, whose beat would not require supervision in summer, because not settled upon, should be detailed to accompany the drives and keep a sharp lookout that the law is enforced. Their duty it would also be to report to the head inspector any infringement of the law, collect evidence, and furnish their superior officer with facts upon which the latter would prosecute delinquents without fear or favour. A very few such prosecutions, with the enforcement of the penalties attached to the offence, would soon and effectually check this source of fires. Although the provinces derive a large revenue from their forests, and might well afford to be at some heavy expense in preserving them, by forming a special department for the purpose, yet I contend that it may be made, if not wholly, at least to a large extent, self-supporting, The Dominion Fisheries Department shews us an example of a large staff of employees at work, and yet bringing a revenue to the country while preserving a source of wealth to the country, the Inland Branch of this department having been formed through the untiring efforts of one man, I am told, but twenty years back. So the records of Ontario attest to the greatly increased revenue from the forests on the appointment of the present able Assistant Commissioner of Crown Lands, with a numerous staff of bush rangers. As already hinted, the present Crown Land Agents might do duty as head inspectors, entitling them to higher pay. The staff of fire inspectors could fill the place of the present wood-rangers, many of the latter being admirably fitted to act as head inspectors and Crown Land Agents combined. Trifling fees might be charged at local offices for every lot located, and when settlement duty is fulfilled it should be the duty of the head inspector to furnish a patent from the Crown without any further trouble to the farmer. A fee of at least $5 would readily be paid by the applicant, and in many cases would be less than they now have to pay through furnishing affidavits, getting letters written, often to no purpose, and finally having the patent refused, forsooth, because some limit-holder objects to the patent being issued.

As the fire inspector's duties would be almost nil, say from October to the end of April, in averting fires, and as it would be desirable to have him permanently in office, it might be a condition of renewing licenses that all saw logs and other descriptions of stuff, apart from square timber perhaps, be measured and culled by the inspector, exacting a certain rate from limit holders. In many cases the poor jobber would be protected by having his work guaged by a sworn and disinterested man, and the revenue would certainly not show a deficit thereby, but the fee charged would go far towards paying the inspector's salary, and in some cases exceeding it.

By some such system as here sketched, the bush fires now causing such enormous loss to the country might be lessened. It is to be desired that others more able than the writer will see the needed urgency of some remedy and draw the attention of those in power to the matter.

Your obed't serv't,

JERSEY.

BOARD OF TRADE RETURNS.

The following figures are furnished by the Board of Trade, for the year 1881 :—

MONTH ENDED 31ST OCT.

	QUANTITY.	VALUE.
Timber (Hewn).	*Loads.*	£.
Russia	18,759	40,496
Sweden and Norway	73,581	121,769
Germany	20,901	68,835
British North America	39,592	168,073
Other Countries	37,829	86,533
Total	190,662	485,705
Timber (Sawn or Split, Planed or Dressed).		
Russia	167,371	438,102
Sweden and Norway	245,730	608,589
British North America	117,602	290,403
Other Countries	13,139	42,165
Total	543,842	1,379,259
Staves (all sizes)	13,298	61,574
Mahogany (tons)	5,137	45,665
Total of Hewn and Sawn	734,504	1,864,964

TEN MONTHS ENDED 31ST OCT.

	QUANTITY.	VALUE.
Timber (Hewn).	*Loads.*	£.
Russia	195,057	383,329
Norway and Sweden	522,491	314,610
Germany	177,541	548,814
British North America	229,614	986,255
Other Countries	453,408	1,309,161
Total	1,578,111	4,038,569
Timber (Sawn or Split, Planed or Dressed).		
Russia	785,789	1,879,294
Sweden and Norway	1,153,732	2,709,878
British North America	762,822	1,885,139
Other Countries	295,381	945,553
Total	2,997,724	7,419,864
Staves (all sizes)	94,131	434,713
Mahogany (tons)	29,784	270,447
Total of Hewn and Sawn	4,575,835	11,458,433

Big Timber.

On the limits of Messrs. R. & G. Strickland, in the Township of Oakley, in Victoria County, in the shanty of which Capt. Leon Dion is foreman, a liner named Lach. McLean recently made in one day two pieces of timber, one forty seven feet in length by thirty five inches girth, and the other forty-five feet, by thirty-five inches. McLean is an old liner who has made timber both in Michigan and Canada, and he says he has never before made as big or as nice timber as he is now making in Oakley.

Chips.

AT Phillips, Franklin county, Me., $15 a thousand is being paid for white ash logs delivered at the mill. The timber is used for fork handles.

IT is estimated that there are fully half a million saw logs lodged in bays and creeks along the shores of the Ottawa River, and about 2,000,000 stuck in the Chats Rapids.

A GENTLEMAN who has just returned from the Upper Ottawa district says there is ten inches of snow on the Coulonge, about 180 miles north of this city. Lumbering operations are progressing favorably there.

IT is stated that there is a project started in Minneapolis, Minn., to utilize the sawdust from the mills there, by mixing it with peat, grinding the compound, and then moulding the product into blocks of convenient size for fuel.

THERE has been a cypress tree felled in High Hill Creek, Darlington county, S. C., by N. B. Jordon, which measured 25 feet in circumference at the butt. Two good axemen were four hours and 50 minutes cutting it down.

HUGH SUTHERLAND & BRO., of Winnipeg, have sold out their retail business and intend going into the wholesale and manufacture of lumber only. They have let a contract to a firm at Grand Rapids, Michigan, for the erection of a new steam saw mill to cut twenty million feet per annum.

IT is stated that the sales of spruce gum in Maine aggregates each year over $40,000; collected partly by men who make it a business, but largely by lumbermen. This is a "timber product" that we fancy has not figured extensively in the reports, but it has been mighty active in the mouths of the girls.

A TREE that was eight hundred feet in length, ninety-six in circumference at the base, and sound to the very heart, was felled in California recently. Five men were twenty-two days in doing the work. After it had been completely severed by auger holes, it still stood unmoved, and required blocks, pulleys, and tackling to bring its proud head to earth.

THE Chicago *Tribune* says that from the streams in the Saginaw lumber district there was rafted during the season of 1881 a total of 856,592,000,000 feet of logs; handled by railroads, 164,500,000. There is held back in the several streams 430,000,000 feet, making a total product rafted in sight of 1,451,557,617 feet, an increase over the product of last year of 361,104,689 feet.

THE Bradford *Expositor* says we are informed that Messrs. Yates & Stratford, of this city, made on the 7th of December, from Point Edward to Montreal, the largest consignment of sawn white oak lumber ever made in Canada, by one firm, at one time, viz.:—Two train loads, consisting of forty-four cars, and that this firm will have shipped of this material to different parts of the Dominion and the United States during the present year 1,500 car loads.

THE dams erected at the falls at Bracebridge by the Muskoka Slide, Dam and Boom Company materially deteriorated the value of the water power owned jointly hy Messrs. R. E. Perry and T. Myers, who claimed from the Company $2,500 as compensation. It was thought the amount of compensation would have te be decided on by arbitration, but the question has been amicably settled without resort to this method, by the Company agreeing to pay $1,750 to the claimants.

A DESPATCH from Eau Claire says:—As near as can be estimated, the lumber cut of the Chippewa Valley the past season will amount to 300,000,000 feet, the greater portion of which was sent to Mississippi markets via raft. The cut of the Eau Claire mills will reach nearly 150,000,000 feet. There are now at least 200,000,000 feet of logs in the Chippewa river, including the amount in Beef Slough, that are available. Half Moon Lake is full, and, with the amount in the different booms, there are 20,000,000 feet. With a favorable winter, the cut in the Chippewa Valley will not fall short of 650,000,000 feet. The roads are in splendid condition for snow, and there seems to be no limit to the number of men going to the pineries.

INLAYING WOOD BY PRESSURE.

An exchange says that a new method of inlaying wood has been contrived by a furniture house in England. The process is as follows:—A veneer of the same wood as that of which the design to be inlaid consists—say sycamore—is glued entirely over the surface of any hardwood, such as American walnut, and allowed to dry thoroughly. The design is then cut out of a zinc plate about one-twentieth of an inch in thickness, and placed upon the veneer. The whole is now subjected to the action of steam, and made to travel between two powerful cast iron rollers, of eight inches in diameter by two feet long, two above and two below, which may be brought within any distance of each other by screws. The enormous pressure to which the zinc plate is subjected forces it completely into the veneer, and the veneer into the solid wood beneath it, while the zinc curls up out of the matrix it has just formed, and comes away easily. All that now remains to be done is to plane down the veneer left untouched by the zinc until a thin shaving is taken off the portion forced into the walnut, when the surface, being perfectly smooth, the operation will be completed. It might be supposed that the result of this forcible compression of the two woods would leave a ragged edge, but this is not the case, the joint being so singularly perfect as to be unappreciable to the touch; indeed, the inlaid wood fits more accurately than by the process of fitting, matching and filling up with glue, as is practised in the ordinary mode of inlaying.

SHANTY LITERATURE.

Mr. J. J. Gartshore, of Toronto, Secretary-Treasurer of the Young Men's Christian Association of Ontario and Quebec, writes to us enclosing a copy of the following resolution passed at the Convention in October at Cobourg:—

"RESOLVED,—That, recognizing the great need for the distribution of good literature, especially among the working classes in the lumbering and other establishments where large numbers of men are employed, this Convention recommend that the Associations use every effort to induce employers of these men to subscribe for publications of a good character for their use."

Mr. Gartshore adds that the Executive Committee would gladly assist in any way those who wish to do do something in the matter.

CAUSE AND EFFECT.—The main cause of nervousness is indigestion, and that is caused by weakness of the stomach. No one can have sound nerves and good health without using Hop Bitters to strengthen the stomach, purify the blood, and keep the liver and kidneys active, to carry off all the poisonous and waste matter of the system.—*Advance.*

RESPECT.—The Grey Hairs of old age demand and should receive respect—but the Grey Hairs of young people require attention—in the way of using Cingalese Hair Renewer. 50 cents per bottle.

"FRIENDSHIP," Cicero says, "is the only thing in the world concerning the use of which all mankind are agreed," but all writers agree that a good pen is a desideratum, and Esterbrook's will be found to be A1.

MACK'S MAGNETIC MEDICINE is an unfailing food for the Brain and Nerves, and by its rejuvenating effects on these organs never fails to cure nervous exhaustion and all weaknesses of the generative organs. See advertisement in another column.

HONESTY.—It is commonly said that you cannot make an honest man believe that white is black and *vice versa*, but those who have grey hair by using the "CINGALESE HAIR RENEWER," will find that this apparent difficulty is easily overcome. 50 cents per bottle.

WHAT TO STUDY.—Pope, the poetical philosopher, said "The proper study of mankind is man, and yet, how little is the real science of man studied. If people understood and heeded the laws of health. and if when out of sorts would resort to a common sense like Burdock Blood Bitters, many of the "ills that flesh is heir to" might be effectually remedied. It invigorates and regulates all the secretions to a healthy action.

THE SADDEST OF SAD SIGHTS—the grey hairs of age being brought with sorrow to the grave is now, we are glad to think, becoming rarer every year as the use of Cingalese Hair Restorer becomes more general. By its use the scanty locks of age once more resume their former color, and the hair becomes thick and luxuriant as ever; with its aid we can now defy the change of years, resting assured that no Grey Hair at any rate will come to sadden us. 50 cents per bottle.

PORTLAND FOUNDRY.

JOSEPH McAFEE,

(LATE ANGUS MCAFEE.)

Warehouse, Main St., St. John, N.B.

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Work done to Order with Quick Despatch.

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THE GREAT ENGLISH REMEDY for Nervous Debility and all Nervous Affections, including Spermatorrhea, Seminal Weakness, etc., result of Self-abuse, indiscretion, &c. is GRAY'S SPECIFIC MEDICINE. This is the only remedy which has ever been known to permanently cure Palpitation and other affections of the Heart, Consumption in its earlier stages, Rushing of blood to the head, Wind in the Stomach, Indigestion, Loss of Memory, Want of Energy, Bashfulness, Desire for Solitude, Low Spirits, Indisposition to labor on account of weakness, Universal Lassitude, Pain in the back, Dimness of Vision, Premature old age, etc. Full particulars in our pamphlet which we send securely sealed on receipt of a 3 cent stamp. The Specific is now sold by all Druggists at $1 per package, or 6 for $5, or will be sent free by mail on Receipt of money by addressing THE GREY MEDICINE CO., 3 Mechanics' Block, Detroit, Mich. 1L21

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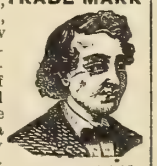

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THE KEY TO HEALTH.

BURDOCK BLOOD BITTERS

Unlocks all the clogged avenues of the **Bowels, Kidneys and Liver.** carrying off gradually without weakening the system, all the impurities and foul humors of the secretions; at the same time **Correcting Acidity of the Stomach,** curing **Biliousness, Dyspepsia, Headaches, Dizziness, Heartburn, Constipation, Dryness of the Skin, Dropsy, Dimness of Vision, Jaundice, Salt Rheum, Erysipelas, Scrofula, Fluttering of the Heart, Nervousness and General Debility;** all these and many other similar Complaints yield to the happy influence of **BURDOCK BLOOD BITTERS.**

Sample Bottles 10c; Regular size $1.

For sale by all dealers.

T. MILBURN & CO., Proprietors, Toronto

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We have for Sale a large quantity of PINE, OAK WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.

☞ P.S.—A SET OF TUB MACHINERY FOR SALE CHEAP—OR EXCHANGE FOR LUMBER. 1Ltf

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Suitable for 'Xmas Presents.

☞ PRICES WILL BE FOUND 10 % CHEAPER THAN HOUSES WHO ADVERTISE LARGE DISCOUNTS.

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Goods sent by mail or express. Perfect satisfaction guaranteed. 1L2

Market Reports.

MONTREAL.

From Our Own Correspondent.

DEC. 23rd.—In looking back on the lumber trade of Montreal for the past year we find that a very fair amount of business has been done, but with so much competition and high rates of wages, it is doubtful if much money has been made. It is difficult to speculate on the prospects of the lumber trade for the incoming year, but from all appearances prices are likely to rule high in the early part of the year, as stocks re low, and there is little prospect of their be g replenished for same time to come. The nills are working full time, and although the demand is only moderate, brisker times are looked for at the opening of the New Year. We advance our outside quotations for pine cull deals and pine mill culls, and with these exceptions our quotations are unchanged. The weather in this region is much against work in the shanties, snow being much wanted to enable them to get their timber out of the bush. We quote :—

Pine, 1st quality, ₱ M.	$32 00@40 00
Pine, 2nd " ₱ M.	18 00@24 00
Pine, shipping culls, ₱ M.	12 00@15 00
Pine, cull deals, ₱ M.	8 00@12 00
Pine, mill culls, ₱ M.	5 00@ 8 00
Spruce, ₱ M.	8 00@10 00
Hemlock, ₱ M.	8 00@10 00
Ash, run of long culls out, ₱ M.	16 00@18 00
Bass, " " ₱ M.	14 00@16 00
Oak, ₱ M.	35 00@45 00
Birch, ₱ M.	17 00@20 00
Hard Maple, ₱ M.	18 00@25 00
Lath, ₱ M.	1 25@ 1 35
Shingles, 1st, ₱ M.	3 00@ 0 00
Shingles, 2nd, ₱ M.	2 00@ 0 00

CORDWOOD.—The market is still dull and the soft weather we are having proves detrimental to business. Prices are steady and unchanged, and there is very little prospect of any advance, rather otherwise, as stocks are pretty heavy, and the Q. M. & O. Railway is bringing in a large quantity of wood, but the quality is inferior to that received in summer by boats. We continue to quote prices at the railway depot, ex cartage :—

Long Maple	$6 50
Short "	6 00
Long Birch	6 00
Short "	5 50
Long Beech	5 50
Short "	5 00
Long Tamarack	4 50
Short "	4 40

TORONTO.

From Our Own Correspondent.

DEC. 24th.—The mild weather during the present month has enabled builders to prosecute their work with as much vigor as at any time during the present season, and lumber dealers have therefore had a good time generally, and few complaints are heard from any of the dealers, except on the score of deficiency of bill stuff, which is being felt more each day that passes over, and will be more severely felt long ere spring reaches us, and my firm conviction is that bill stuff must advance at least one dollar per M. above present figures. For many years past bill lumber has ruled so low as to leave but little margin to the manufacturer, and the result has been that mill men has turned their attention more to the cutting of bill lumber, leaving the manufacture of dimension stuff to those whose pine is specially adapted to that purpose, and the consequence is that we now have a famine in that class of lumber, and builders must pay more for such material in the future if they expect to induce mill men to turn their attention to the cutting of bill lumber. The demand for lath is unabated and retailers readily obtain $1.75 to $1.80 per M., carload lots command ready sale at $1.50 to $1.60, according to width and quality, but should severe frost set in, prices may recede somewhat. Considerable lumber of the better grades has been shipped by rail to Buffalo and other points during the last two weeks, a good class of uppers realizing $32 to $33 per M. on car here, but as the holiday season is now at hand we may look for a quiet time for two weeks to come, and should the weather continue mild we may then look for considerable activity in lumber matters, and should the remainder of the winter prove favorable for logging purposes, a large trade will be done next summer both over our docks and on the local market.

All wood working machinery in the different factories here are being worked to their fullest capacity, large quantities of doors and sashes being manufactured for different points in Manitoba, and there seems no diminution in the number of houses in course of erection, and yet ready sale is found for them as fast as finished, so that viewing the prospects for the lumber trade next season, there is little room for doubt as to a highly successful year.

Prices at the different yards remain much the same as when I last wrote to you, but the figures asked by wholesale men would seem to warrant a considerable advance on all grades of lumber.

QUOTATIONS.

Mill cull boards and scantling	$ 9 00
Shipping cull boards, promiscuous widths	11 00
" stocks	13 00
Scantling and joist, up to 16 ft	12 00
" " " 18 ft	13 00
" " " 20 ft	13 50
" " " 22 ft	14 00
" " " 24 ft	14 50
" " " 26 ft	15 50
Scantling and joist, up to 28 ft	16 00
" " " 30 ft	18 00
" " " 32 ft	19 00
" " " 34 ft	20 00
" " " 36 ft	23 00
" " " 38 ft	25 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	18 00
" boards "	16 00
Sound dressing stocks	15 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	34 00

B. M.

1½-inch flooring, dressed	28 00
1½ " " rough	14 00
1¼ " " dressed	24 00
1¼ " " undressed	14 00
1 " " dressed	20 00
1 " " undressed	15 00
⅞ Beaded Sheeting, dressed	20 00
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M.	2 80
XX sawn shingles, ₱ M.	2 75
Sawn Lath	1 75

LONDON, ONT.

From Our Own Correspondent.

DEC. 22.—It was my intention to furnish you in this letter with a data of the consumption of lumber in this city for the past year, but I find it will be better to wait a week or two, when the merchants will be through with their stock-taking, and I shall then be enabled to give a more accurate statement. So that you may look out for it in my next.

The weather in this section is almost as open as spring, and the products of last year's lumbering in all our particular bases of supply are getting pretty well run out, consequently a strong feeling prevails here that unless we have at least a short season of a good old-fashioned winter, lumber in the spring will be very scarce and as a result much higher.

One man up on the London, Huron & Bruce Road, who got out over 300,000 feet last winter, has cleared out every stick, and another who got out 2,000,000 feet has very little left, and is holding. This, however, is the general cry, all stocks are getting very low, and though I cannot record higher figures just now, the tendency is very much in that direction.

To-night the tenders for the new block of wholesale stores are to be handed in, and I shall know in a day or two in what direction the lumber contract has been let.

At this date I cannot quote higher figures, so that my last will be reliable quotations for this letter. These prices, however, are understood to be bottom cash figures.

QUOTATIONS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	11 00
" " 10 and 12 in. stocks	11 50
Common boards, promiscuous widths	13 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 50
" " " 22 ft	16 50
" " " 24 ft	18 00
Common stocks	14 00
Common 2 in. plank	13 00
Cutting up plank and boards	18 00
Sound dressing stocks	17 00
Clear and picks	31 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	20 00
¼ " " " "	20 00
1 " " " "	20 00
XXX sawn shingles, ₱ M.	2 90
Lath per 1000 feet	4 00

OTTAWA.

From our own Correspondent.

DEC. 22nd.—The weather of late has been exceedingly open in the Ottawa Valley, with no snow on the ground in this section at the present time, and lumbermen fear that the lack of the "beautiful" will have a tendency to curtail in a measure the quantity of logs and square timber to be got out this winter; but Vennor has promised "snow" before the season is over, and it must come sooner or later, before next summer anyway, and this will make lumbermen happier.

The lumber business is rather flat here just now, as stocks here are low. There is not near so much lumber being held over by the mill owners of this locality as there was a year ago. Bronsons & Weston have only about half as much on hand as at this time last year, Eddy and Gilmour & Co. also have reduced stocks, Pevley & Pattee and J. R. Booth have nearly the same amount as a year ago, as their season's cut was not reduced to a very great extent. There are some shipments being made by rail to the American markets, but the trade is not very active, as lumbermen are now between the two seasons, and business is quiet. The stocks on hand have about all been disposed of, and are shipped as desired. Lumbermen decline as yet to estimate their cut of next season, as it is too early, and they therefore decline to enter into any contracts with dealers.

The prospect of another season's good trade in lumber is looked forward to by all parties interested, and preparations are being made for it. Lumbermen have nearly all sent a greater number of men into the shanties than they did a year ago, but if the snow fall is light, there may be low water again next summer, and consequent trouble and loss experienced. Barge-owners are anticipating a good season, and the barge-builders at the Hull shipyard are busy at work building some additional barges.

The electric light promises to be the saw mill light of the future. McLachlin Bros., of Arnprior, intend to have their splendid new mill lighted up by electricity, and have given an order to the Maxam Co. for the necessary lights and machinery. Mr. Peter McLaren, of Carleton Place, has also ordered five lights for his mill and grounds at Carleton Place.

Timber limits have increased in value of late. Two or three years ago there was no sale for them, and some of those who had them on their hands felt the weight of them to carry through to the end of the hard times. To-day there was sold at the Grand Union House, in this city, by auction, a 100 miles square limit on the Black River, owned by Mr. James Findlay, for $60,000. Mr. Miller, of Pembroke, was the purchaser. There were a good many lumbermen present at the sale, considerable interest being manifested.

During the past season 415,435 logs came down the Gatineau River, together with 16,089 pieces of square and flatted timber, and 794 spars, being quite an increase over the quantities for the previous year, and greater than in any preceding season.

The export of timber from Quebec was not so great during the past season as in the previous one, while over four and a half million feet of square timber is held over, with a million and a a half feet of white waney, and two million feet of red pine. The timber product of the Ottawa Valley this year was nearly double that of 1880, and more still will be taken out the coming season. There is quite a quantity—some half a dozen rafts—laid up on the Upper Ottawa.

ST. JOHN, N. B.

From Our Own Correspondent.

DEC. 21.—It is no easy task to make up a lumber report with the very scanty materials at command at this season of the year. True, our harbor is open and we have the same facilities for shipping as in July, but with the sources of supply closed, and the stock on hand reduced to a minimum, there is little left to be done.

DEALS.

As noticed in our last report, all the available stock having been bought up, there are no transactions in deals to report at this writing. The prospects for the future appear to be that the price of deals the coming year will rule higher than for some time past—the latest transactions, of course, excepted. It seems to be agreed on all hands that the log supply will be much below the average; this, together with the fact that old stocks are pretty well cleared out, and the improving prospects of the English market, would seem to indicate that the expectations of higher prices next year are well founded.

FREIGHTS.

We have nothing to add to our remarks under this head in our last.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	3,630,000 Sup. feet.
" United States	1,398,000 "
" West Indies	233,000 "

The number of sugar box shooks shipped for Cuba from Sept. 1st to date is 34,856.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Atlantic, 412, Liverpool, Fleetwood or Barrow.
Emily Lowther, 762, Liverpool.
Rialto, 1,530, Liverpool.
Arabella, 1,100, London.
Henry, 1,095, Liverpool.
Etta Stewart, 787, ——
Cambusdoon, 1,200, Bona (Afr.) orders.
Carrick Castle, 878, Adelaide, orders.
Magdala, 215, Bristol Channel.
Linden, 913, Liverpool or Bristol Channel.
Souvenir, 828, Liverpool.
Gettysburg, 1,015, Adelaide, for orders.
Templar, 778, discharging.
Antwerp, 573, Penarth Roads.
Torryburn, 448, discharging.
Oscar 1st. 650, ——

ALBANY.

DEC, 22.—Quotations at the yards are as follows :—

Pine, clear, ₱ M.	$53 00@63 00
Pine, fourths	43 00@58 00
Pine, selects	43 00@53 00
Pine, good box	18 00@30 00
Pine, 10-in. plank, each	00 38@00 42
Pine, 10-in. plank, culls, each	00 20@00 22
Pine boards, 10-in	00 26@00 28
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M.	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	28 00@30 00
Pine, 1¼ in. siding, select	40 00@42 00
Pine, 1¼-in. siding, common	16 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2¼x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ₱ M.	35 00@40 00
Ash, second quality, ₱ M.	25 00@30 00
Cherry, good, ₱ M.	60 00@70 00
Cherry, common, ₱ M.	25 00@35 00
Oak, good, ₱ M.	38 00@43 00
Oak, second quality, ₱ M.	20 00@25 00
Basswood, ₱ M.	22 00@25 00
Hickory, ₱ M.	36 00@40 00
Maple, Canada, ₱ M.	26 00@30 00
Maple, American, per M.	25 00@28 00
Chestnut, ₱ M.	35 00@40 00
Shingles, shaved, pine, ₱ M.	0 00@ 6 25
£F " 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 30
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M.	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 00

CHICAGO.

DEC. 21.—The arrivals by lake since our last report have consisted of but a few straggling vessels. The aggregate receipts by both lake and rail reached during the past five days but a little over 5,000,000 feet of lumber, and 2,690,000 shingles, bringing the total receipts of the season to 1,846,819,000 feet of lumber, and 783,401,000 shingles. This is an excess of 33,234,000 feet for lumber and 149,344,000 shingles above the receipts of 1880, and while ten days of the current year still remain, and will no doubt increase the excess to some extent, yet they are practically near enough to determine the net results of the season's work in receiving lumber at this port. This extraordinary increase, however, is wholly offset by the equally astonishing figures of sale and shipment, which having reached 1,871,133,000 feet of lumber and 868,852,000 shingles, reveal an increase in the former of 357,781,000 feet and in the latter of 131,388,000. The following are the

CARGO QUOTATIONS.

Joist and scantling, green, ordinary lengths	$12 00@12 25
Joist and scantling, green, 20 feet and over	14 00@16 25
Mill run, choice green	19 00@23 00
Mill run, medium, green	16 00@19 25
Mill run, common, "	00 00@14 00
Shingles, standard	2 75@ 2 80
Shingles, extra A	2 80@ 2 90
Lath	2 12½@ 2 25

BOSTON.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

OSWEGO, N.Y.

Dec. 24th.—The demand for lumber is much larger than was ever before known at this season of the year. Assortments are already very much broken, the stocks of upper grades are fast disappearing, and dealers have difficulty in filling orders in anything better than common lots of mill run. The following are the quotations :—

Three uppers	$42 00@45 00
Pickings	32 00@35 00
Fine, common	20 00@25 00
Common	14 00@18 00
Culls	13 00@15 00
Mill run lots	17 00@22 00
Sidings, selected, 1 inch	34 00@38 00
1¼ inch	34 00@38 00
Mill run, 1x10, 13 to 16 feet	17 00@21 00
selected	23 00@25 00
shippers	15 00@16 00
Strips, 1 and 1¼ inch mill run	15 00@22 00
Culls, selected	23 00@32 00
Culls	13 00@15 00
1x6 selected for clapboards	25 00@40 00
Shingles, XXX, 18 inch, pine	3 85@ 3 90
XX, " "	2 80@ 3 00
XXX, 18 inch, cedar	3 00@ 3 30
XX, " "	2 25@ 2 50
Lath	1 40@ 1 60

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$40 00@45 00
Common	17 50@20 00
Culls	11 50@12 50

BUFFALO.

We quote cargo lots :—

Uppers	$40 00@45 00
Common	17 50@20 00
Culls	11 50@12 50

LIVERPOOL.

Duncan, Ewing & Co.'s circular, dated Liverpool, 3rd December, 1881, quotes the arrivals since 1st February to date in the last three years from Quebec thus :—In 1881, 103 vessels, 76,968 tons ; in 1880, 130 vessels, 119,587 tons ; in 1879, 77 vessels, 64,966 tons. Their comparative table of supplies since 1st February to date, in the last three years, shows the import of Quebec pine timber to be :—In 1881, 30,159 logs ; in 1880, 45,544 logs ; in 1879, 22,674 ; Quebec deals, in 1881, 1,227,247 pieces ; in 1880, 1,755,583 pieces ; in 1879, 991,956 pieces. They say there has been a more satisfactory business done during the past month than has been experienced since the season commenced, and the stocks held over (with the exception of pitch pine) are in the aggregate much more moderate than they were at this period last year, whilst the consumption of square timber for the month is almost double that of November, 1880.

CANADIAN FREIGHTS.

The London *Timber Trades Journal* has another long article in favor of "Canada, its people, and its produce." It concludes as follows :—As a corn-producing country the Dominion of Canada may be considered yet in its infancy, but in respect of its timber production it is already prepared to supply the outside world to any extent that may be required, and its export is yearly increasing. The importation into this country from British North America was in 1878 1,224,051 loads, in 1879 (a bad year) the quantity fell to 1,101,020 loads, but in 1880 it rose to 1,507,662 loads. Russia and Scandinavia, the other two sources of our chief supplies, during the same time sent us as follows :—Russia, 1878, 1,237,026 loads ; 1879, 898,509 loads ; and 1880, 1,397,287 loads ; Sweden and Norway in 1878, 1,921,573 loads ; 1879, 1,843,283 loads ; and in 1880, when a dearth of timber was to take place in those regions, 2,267,082 loads. The quantity sent to this country by the three shipping counties just enumerated and summarized for the three years was :—

From Russia	2,532,780 loads.
B. America	3,832,733 "
Scandinavia	6,021,938 "

By which figures it will be seen that our North American colonies, though more remote, send us 50 per cent. more timber than Russia, including Finland, and nearly two-thirds of the quantity we get from Norway and Sweden, many of whose chief shipping ports are within four or five days' sail of our shores. Were there any mode of equalizing the expense of transmission, the colonial trade in timber with us would be much greater, but the high rate of freight in proportion to value embarrasses their trade with Great Britain. On corn 5s. on 40s. is about the freight from Canada to this country, but on timber about 20s. on 40s. ; for instance, 65s. per standard in paid on spruce deals, many of which do not realize £6 10s. at market, clear of landing and other charges.

From these figures it will be seen that on low class wood goods the freight from the Gulf of St. Lawrence is 50 or 60 per cent. of the selling value on arrival in this country, while from Norway it is not over 25 per cent. On Quebec 1st pine deals, which fetch £20 and upwards to sometimes £25, the freight is not so prohibitory, as these pay no more for carriage than the roughest scantlings. Even then the freight will be 18 to 20 per cent. on the selling value. But on best goods from Norway, such as prepared flooring, the average freight will only be 15 or 16 per cent. When we see the disadvantages under which the timber trade of Canada labors in its European export, we can easily understand how great would be its expansion in the United Kingdom under a more equalized system.

MUSKOKA AND PARRY SOUND.

From Our Own Correspondent.

Bracebridge, Dec. 24th.—The following is a statement of this season's cut of saw logs and board timber, as near as it can be got at now, for the districts of Muskoka and Parry Sound :

Muskoka Mill and Lumber Co	20 millions
British Canadian L. and T. Co	22 "
R. Power	15 "
Brentwood Lumber Co	5 "
Georgian Bay Lumber Co	42 "
W. Christie	3 "
Hull	10 "
G. Taylor	4 "
Dominion Bank	4 "
Wm. Tait	4 "
C. Meaker	4 "
Thompson & Baker	3 "
Woodstock Lumber Co	6 "
J. Cockburn	6 "
Parry Sound Lumber Co	15 "
Ontario Bank	10 "
Charles Bick	5 "
J. M. Dollar	9 "
Crone	3 "
Sundry Others	5 "
Total	195 millions.

R. Dollar, for American markets, two million feet of long, round timber, also board timber as follows, in cubic feet :—

S. S. Cook, including what was stuck last year.	485,000
McArthur Bros	100,000
Strickland	100,000
J. M. Dollar	150,000
John Durkin	50,000
Burton Bros	200,000
And on the north shore—	
McArthur Bros	100,000
Robert Dollar	300,000
O. F. Wright	100,000
M. McDugall	150,000
Total	1,735,000

At present we have no snow, consequently no hauling, and the prospects are poor for any soon, so the above figures may not be realized, but the cutting and skidding is nearly all done. Men are very plentiful now, and wages have dropped about four dollars per month.

The Electric Light, superceding as it does all other modes of illumination, and rivalled only by the glorious sunshine, will not be hailed with greater joy by mankind, than Burdock Blood Bitters, which is as far superior to all other blood purifiers and tonics as the electric light is superior to the old-fashioned tallow dip. Burdock Blood Bitters cures scrofula, and all foul humors and impurities of the blood.

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Chipman, Renaud & Co.

MANUFACTURERS OF

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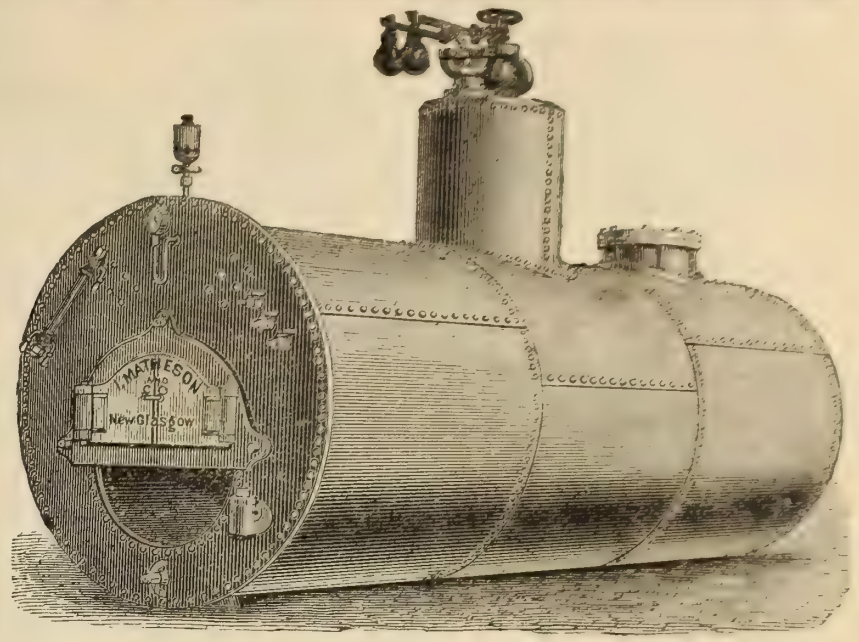
MONTREAL



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Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19

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MANUFACTURERS OF ALL KINDS OF

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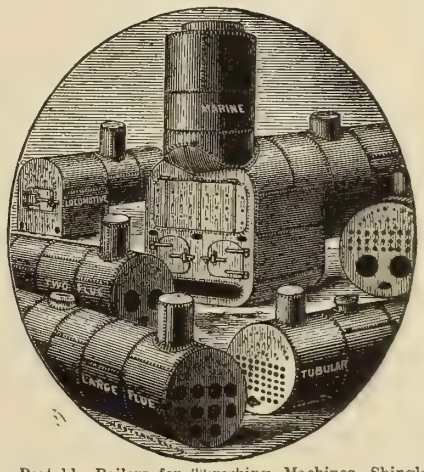
And SHEET IRON WORK.



Portable Boilers for Threshing Machines, Shingle Mills, etc., furnished on short notice. All Boilers tested by cold water pressure to 150 lbs. to the square inch before leaving the shop,

SECOND-HAND MACHINERY

BOUGHT, SOLD, OR TAKEN IN EXCHANGE FOR NEW WORK.

☞ *Repairs Promptly Attended to.*

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UNION FOUNDRY

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ST. JOHN, N. B.

Allan Brothers

(Late of Harris & Allen)

MANUFACTURERS OF ALL KINDS OF

Steam Engines

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MILL MACHINERY.

Ships Windlasses, Iron Capstans

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COOKING AND HEATING

STOVES,

Shop, Office and Parlor Stoves, and Franklins.

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BRASS CASTINGS.

Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use. 1L18

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81 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. ☞No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

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MONTREAL

Manufacturers of

LEATHER BELTING

Fire-Engine HOSE,

Lace Leather,

Mill Supplies, &c.

1L13

Wrought Iron Shanty Cook Stoves

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use.** These Stoves are made of **Heavy Sheet Iron**, the top and lining of the fire-box being of **Heauy Cast Metal** and all the connecting parts of substantial **Wrought Iron Work.** The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 24 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business. Very truly yours, GEO. HILLIARD, M.P.

EVERY STOVE GUARANTEED

All the necessary TINWARE and CUTLERY for Shanties suppied at the Lowest Prices. 1L7

ADAM HALL, Peterborough.

D. McLACHLAN & SONS,

Manufacturers of all Descriptions of

STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

1L15 NORTH SLIP, ST. JOHN, NEW BRUNSWICK.

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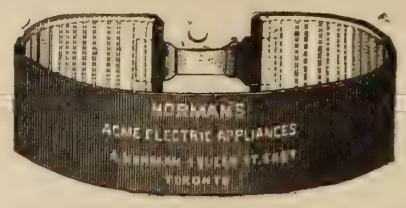

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A. NORMAN, Esq., WATERVILLE, N. B.

Dear Sir,—Please send me a waist belt. Enclosed find price. Head band I got for my wife has almost cured her of neuralgia. Yours truly, C. L. TILLEY.

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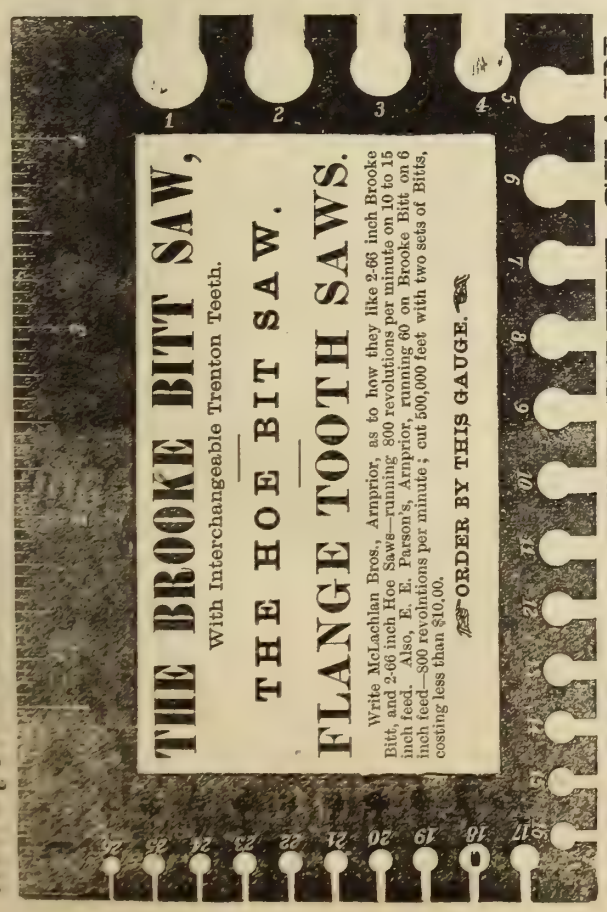

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FLANGE TOOTH SAWS.

Write McLachlan Bros., Arnprior, as to how they like 2-66 inch Brooke Bitt, and 2-66 inch Hoe Saws—running 800 revolutions per minute on 10 to 15 inch feed. Also, E. E. Parson's, Arnprior, running 60 on Brooke Bitt on 6 inch feed—800 revolutions per minute; cut 500,000 feet with two sets of Bitts, costing less than $10.00.

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Cuts three perfect Shingles out of inch board. Cuts Shingles out of slabs and all manner of refuse. Will soon pay for itself around any large Mill.

AUTOMATIC GANG TRIMMERS, SIX SAW EDGERS, and the most improved Saw Mill Machinery. PORTABLE SAW MILLS OUR SPECIALTY.
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NOISELESS ROLLER MILL

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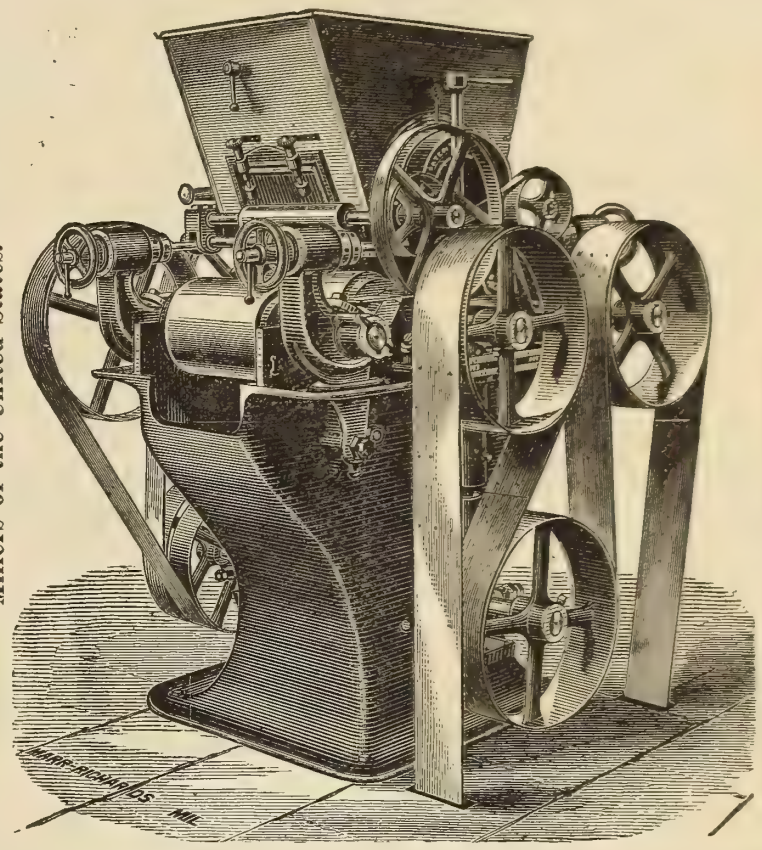
Every Mill a Success!

☞These Roller Mills are used by all the Representative Millers of the United States.



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EMERY WHEELS FOR SAW GUMMING!

EX INUTILI TRADE TANITE MARK UTILITAS

Solid Emery Wheels are now almost in universal use for the purpose of guilletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ⅜ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ⅜ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } Holes, ⅜, ⅞ and 1 inch.

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. **MEDIUM—HARD.**—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2." It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. **MEDIUM—SOFT.**—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." **EXTRA SOFT.**—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 108

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CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,

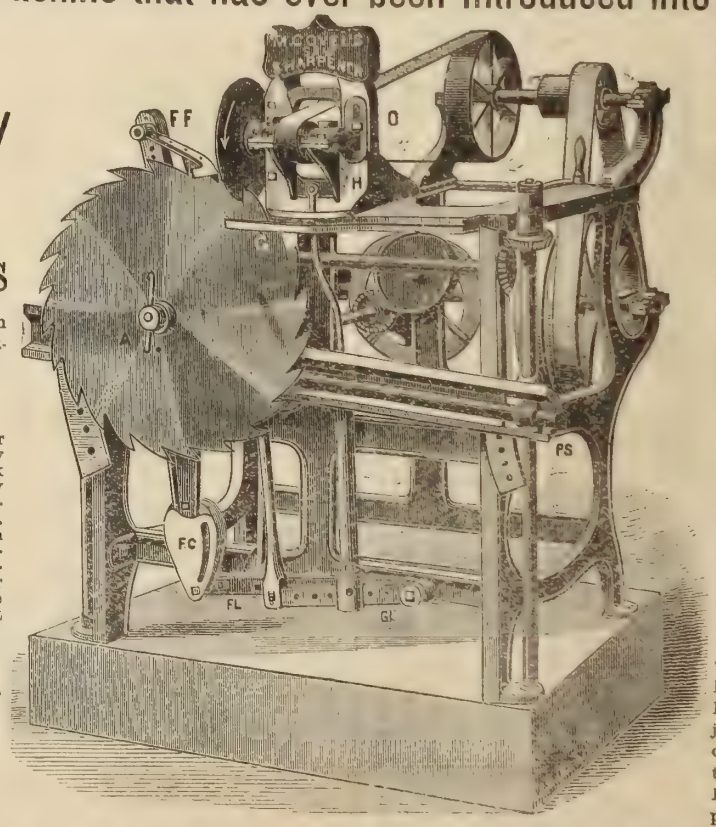
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,

THOMPSON, SMITH & SON.

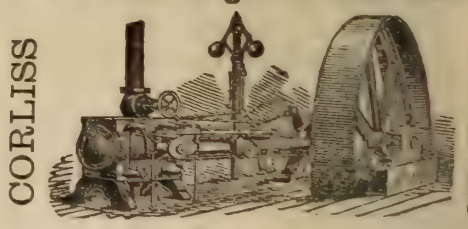


MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

Horizontal Engines and Boilers

CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2¼ pounds of coal per horse-power per hour. h.tf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

VOL. 2. PETERBOROUGH, ONT., JANUARY 16, 1882. NO. 2.

HEMLOCK.

Of this wood, Mr. E. Jack, of Fredericton, says:—We are beginning in New Brunswick to pay a little more attention to the subject of hemlock than ever before, although the lumbermen of St. Stephens have been fully alive to its value for some time past. One of them informed me that last season he had received $5,000 stumpage for the bark on two million feet, board measure, of hemlock logs.

One of the principal builders in Fredericton, Mr. Mitchell, says of this wood:—"For common kitchen furniture, I believe that the best of hemlock might be used very advantageously, indeed, I think it is the best soft wood which we have for such purposes, pine, of course, excepted. It does not warp nor shrink so much as spruce, and is easier worked. I have never made any coarse furniture from it as yet, but I am sure that it might be used to a considerable extent for such purposes. For building material t might be used much more than it is. In 1851 I built a brick house in Fredericton, and put in hemlock for all the flooring joists, and I think that there are no better floors in Fredericton today. Hemlock is superior to spruce for rough boarding or for board fencing, as the boards can be got wider than spruce, and do not require so many nails, and are not so liable to warp as are those made of spruce. It dries very fast and does not shrink quite as much as either spruce or pine. Hemlock might also be used used for the inside furnishing of houses, and is a very pretty wood when well oiled and varnished."

A GOOD EXAMPLE.

From advance sheets of the Report of the Department of Agriculture of the United States just received, we notice our go-a-head neighbours are taking the bull by the horns with regard to forestry. Finding the vast and increasing importance of this branch of the service has so outgrown its limits, and requires so much care and attention, the Commissioner of Agriculture formed it into a distinct division, to be devoted entirely to the investigation of such subjects as will lead to the fullest development of the resources of the country in this respect.

This new office will have in view the best means of checking the wasting away of the large timber areas, the maintenance of the forest lands, by protection, replanting, and by the dissemination of such information as will assist as far as possible all the various interests involved in this industry.

In furtherance of this design, an agent of the Department has been sent on a mission to Europe to investigate the organizing and working of experimental forest stations, schools of forestry, private tree-planting, and the aid afforded by the government to the business of forestry.

It is perhaps unfortunate that at the time of Confederation the timber interests of Canada were handed over to individual provinces, instead of being retained under one head. A more united action and supervision could then have been had over this vast source of Canadian wealth. It is well known that Britain and the United States are large buyers of timber from this country; and the North West is also destined to require an almost unlimited supply. Already houses have been shipped from the Ottawa mills by rail to Winnipeg, ready for putting together when they reach their destination. With these considerations in view, it is impossible to foresee the result should our pine forests give out before they can be renewed. The large advance over former years given for timber berths at the sales this autumn already indicate that timber is getting scarce. Surely the approaching Ontario session will not pass over without something being done in the shape of protecting our pine lands from pillage and from bush fires, and in taking into consideration some method, or devising some means for replanting our lands already stripped of their forest wealth.

Mr. Burke's able prize paper on forestry, which we printed at the time, has already treated on these subjects, and we only wish to call attention in this issue as to what the Americans are doing, so that Canada may not be left behind hand in the preservation of her woods and forests.

TREE CULTURE.

The return of Prof. F. B. Hough from Europe is announced, and to the majority of readers the announcement conveyed their first knowledge that the Agricultural bureau has a division of forestry, of which he is the head. For seven months he has been studying the schools of forestry in various continental countries of Europe, and, having brought back a large collection of material, he proposes to make recommendations to congress for planting, preserving, and maintaining forests on the prairie and desert lands of the west. Some progress has already been made in tree culture in this country. A few states, by exemption from taxes and otherwise, have sought to arouse an interest in the subject, but for the most part local and voluntary organizations have done all the work. In 1876, B. G. Northrop, secretary of the Connecticut board of education, distributed a circular among the schools of that state suggesting, as a good centennial movement—not to end soon but to be continued—an annual tree-planting on the highways. He said then, in a pamphlet reviewing the various educational topics, that George B. Emerson, author of the work on "The Trees and Shrubs of Massachussets," had, during that year, imported and planted more than 30,000 European larches of two years' growth from the seed. That tree, long one of the chief timber trees of Europe, was pronounced by the Boston and Albany railroad, after 15 years' trial of it in ties, as durable as red cedar, and the Illinois Central road offered to carry the European larch gratuitously to any point on its lines, provided the trees were to be planted near the lines. Many millions of this tree and of the Scotch pine (said to be the best tree for poor soils) are growing in the west, and (said this pamphlet) "in the new aboretum belonging to Harvard college, situated in Brookline, and including over 130 acres, are now growing over 200,000 small trees started from the seed, including 93 varieties of evergreens, 450 of deciduous trees and shrubs, and 34 of oaks." Connecticut, in 1877, passed a law exempting from all taxation whatever, for a term of ten years after an average of six feet in height had been attained, any plantation of any eight trees named, provided that the lands so used had not heretofore been woodland; that it was not actually worth more than $15 per acre at the time of planting, and that the trees numbered at least 1,200 to the acre. In Massachussetts a draft of a bill is ready for the legislature, which provides that whenever any town devotes, by proper legal form, any part of its area to tree culture, and whenever the appropriation for buying this tract, plus donations, equals the assessed value of the real estate included, the tract shall become a public domain, the title to vest in the commonwealth, but the tract to be perpetually held for the benefit of the town, subject to some restrictions unnecessary to quote; the act shall not apply to any tract of less than 500 acres, unless adjoining some other tract which will make that area of continuous public domain. A state board of forestry is also provided for.

The foregoing only shows the drift of feeling, and is by no means a complete sketch of the organized movement which has resorted to statutes and to work through fair and similar associations. The best work, because the speediest and most contagious, is probably that of the village improvement society. Thus, an item we have previously quoted from the Springfield *Republican*, a year or two old, reads that "the Williamstown Improvement Society finished last week its tree-planting, and there is now a continuous row of 450 elms for three miles from the village to the North Adams line. It asks North Adams people to continue the row to their village." It is natural for North Adams to do so, and for other villages to imitate the example set. Here is probably the most effective plan, needing only that some public spirited person in every village should stir about and make the start. But, as we have already remarked, the tree lines should not stop where the village ends; they should be continued until all the highways become leafy lanes. The work is no very arduous one, requiring only co-operation and concerted action. "Tree planting day" may be made one of the most delightful in the year. That the mud will not dry so quickly on a shaded road is true, but it is an error to assume the necessity of having the mud there. The trees will naturally beget a desire for good roads, which do not include mud and sand, and the farmer who has intelligence to value a tree except to fell it will not be long in discovering the economic value of good roads, even when they cost something.

Do trees pay? In part an answer may be had to this if we suppose wood capable of being mined, fruit and nuts growing on vines, and the earth to become treeless. Where trees are wanting is desert; where they will grow other vegetation will, and their cultivation is able to remove sterility in many places. Civilization makes a mistake in viewing the forest as an enemy merely because it had the soil first, and counts too much on the axe and fasces as a symbol of progress; trees are closely linked with high civilization, comfort, prosperity and education, and the rule should everywhere be that trees should be wherever the soil is not needed otherwise—this would allow all the room wanted by cultivation, while retaining forest and shade. The close connection between rain-fall, drought and trees is becoming seen, their intrinsic value is second only to that of minerals, and no investment yields so well, for their first cost is unappreciable. Nor is it necessary to base their culture solely on regard for posterity, which has never done anything for us, because a decade or so will make them useful to their planters. Hard and slow work as it is to start public movements which do not appeal especially to private interests—for example, in the matter of the Niagara Falls international park and the Adirondack reservation in this state—there is gratifying progress in tree culture. An evidence of it is the enlightened selfishness which has led some railroad companies to erect tasteful station buildings and to beautify them cheaply by little flower beds as well as to discover the practical utility as well as pleasanter appearance of a grassy road-bed. Trees are a good part of the original plan of the world, and it is sensible to discover that their destruction and repression are no improvement upon it.—*N. Y. Times.*

QUEBEC TIMBER VESSELS.

The following is a comparative statement of sailing vessels cleared at the Port of Quebec, for sea, (lumber laden,) in 1874, 1875, 1876, 1877, 1878, 1879, 1880 and 1881, from the opening to close of navigation, compiled by Mr. F. Johnston, Quebec Exchange:—

1874.....	854 Vessels.	.....	638,672 tons.
1875.....	642 "	.....	478,441 "
1876.....	786 "	.....	624,110 "
1877	796 "	.....	670,627 "
1878.....	476 "	.....	399,833 "
1879.....	493 "	.....	364,628 "
1880.....	634 "	.....	555,451 "
1881.....	459 "	.....	380,186 "

THE FINER MANIPULATION OF LUMBER.

To what extent is it profitable to work up lumber at the saw-mill, is a problem which has puzzled the wisest brains of a proverbially wise class of men. From the increased cost of logs which the past few years has developed, it has been no less a problem with manufacturers to throw the least possible quantity into the saw-dust heap and slab pile, than to make the most of the manufactured product, and to utilize to the most advantageous extent the inevitable debris. The question of planing at the saw-mill, of making box shooks, sash, door and blinds, has been well considered and thoroughly experimented with, and while many of the experimenters are still striving to make their earlier ideas upon the subject not only practicable but profitable, by far the greater number have abandoned the project, and sold or thrown away their machinery. The fact has become patent to all, that no profit can he derived from any manipulation of forest products at a point, when, by reason of heavy freights and expenses attaching to its transportation to competing points, the same articles can be produced at those points from lumber transported thither in the rough, at lower rates. For this reason the endeavors to make box shooks, at the saw-mills of the main producing localities, has almost always, if not invariably, proved a failure, and the enterprise abandoned. The profitable dressing or surfacing of lumber at the saw-mill depends largely upon the same question of transportation and competition. It is safe to say that any endeavors to prepare lumber for immediate use, at a majority of the saw-mills of Michigan, would prove unprofitable, because of the many handlings to which the lumber must be subjected before reaching the consumer, who would be loth to purchase a lot of dressed lumber, the edges or surface of which were either broken, indented or bruised, if his choice was extended to such as by reason of but one handling to and from the cars to the yard of the retailer, was nearly or quite in as good condition as when it left the machine. This objection would not apply with equal force to the manufacturer on the Mississippi river and in Wisconsin, who cultivates a trade with the retailer upon the prairies, and can ship the manipulated product to his yard. Neither does it apply to such other localities as cultivate a trade almost directly with the consumer by way of rail transportation, and those who are thus favourably suited find profit in the closest preparation of their stock. To these it is a measure of the greatest profit to work their lumber into flooring, ceiling, siding and moulding ; but it is then a question of great doubt, if in a majority of cases it would pay them to enter into competition with the extensive preparations for box-making, which in many large cities, especially manufacturing ones, work up the coarser grades of lumber most profitably, and by reason of personal activity in seeking for and retaining customers among the actual consumers of boxes, are enabled to turn out vast quantities at so small a profit on each, as effectually to cut off all chance for profit on the part of a manufacturer who has transportation to pay, even though his stock be accounted as costing him nothing.

That the waste of a saw-mill is immense, no one can doubt, and it was a realization of this fact which originally led to the abrogation of board lathing, in favor of the piece lath which, fully as good if not better, could be made from a class of timber otherwise fit for the furnace. This also led to the manufacture of four feet pickets, and as well to square pickets, which could be profitably made from slabs, when previously they had been manufactured from lumber. These all are now exclusively made from an otherwise waste material, and while we have seldom or never known a successful experiment in finishing them ready for use at the point of manufacture, except when the mill enjoyed railroad facilities, they have in the rough, usually proved a handsome perquisite in connection with the manufacture of lumber.

White and Norway pine do not present the same adaptability to general use, in the smaller manufactories, as do basswood, oak, beech, maple, hickory, black walnut, and other varieties of hardwood, including whitewood and poplar. Basswood can be made into some kinds of light handles, on account of its toughness, where pine would prove a failure, but no one would make from pine anything which required greater strength than a curtain roller, and it would not require the debris of many mills to fully supply the demands of the market. Board ends and the thicker slabs are, to a large extent, now made available for the manufacture of shingles by means of Spalt shingle machines, and while it will pay any mill of any great extent, to run one of these machines in the utilization of its waste, such as broad ends, thick and meaty slabs, and in saving the sound end of the core which comes from hollow butts, we would not advise anyone whose mill is not convenient to a dense population to depend upon making a profit from working slabs into shingles. On this point it must be admitted that location cuts the principal figure. The consumer on the prairie in many cases wants a cheap shingle, and does not scrutinize sap. The dealers of the West make no difference between a bastard shingle and those cut "rift." With them, a moderate amount of sap on a *A* shingle, does not injure the grade. The eastern market on the other hand is more fastidious.

The Michigan mill man who would send sap or bastard shingles to the eastern market, would probably never repeat the experiment. Many mills have endeavored to work up their debris in the manufacture of pails and tubs, but we think it has been an almost universal experience, that it was not found profitable, and when the works have been continued in operation, it has been through recourse to timber in the log, perhaps after being prepared in cants by the saw mill, but to the utter neglect of the slab pile.

The theory of finer manipulation of the debris at the saw mill is a very good one, but the practice must inevitably depend upon the location of the mill and its facilities for transportation, direct to the consumer, with few or no intermediate handlings. A case in point will be recognized by every manufacturer of sash, doors, blinds, etc., whose manufactory is situated in the midst of heavy saw mill operations, where slabs can be obtained for little or nothing, and pick them at that. The pieces of lumber which enter into the manufacture of blinds and windows are very small, and to the novice it would appear, could easily and cheaply be taken from the large slabs which form the debris of the mills. If, however, there is a manufacturer of sash and blinds, who does not find more profit in buying suitably manufactured lumber for the use of the factory, than he can realize from working up the best of slabs, we have no knowledge of his whereabouts. The item of labor overbalances the cheapness of the stock. Hardwood mills can, to a great extent, work up their slabs into something in connection with the furniture trade, if there is a factory near them, but it is a fact that black walnut ends and strips, of a foot long, and one to two inches wide, are burned by the cord every day, under the boilers of some of the largest furniture manufactories in this city, where black walnut is worth all the way from $75 to $200 per thousand feet. It would seem that in such a city as Chicago, with its widely diversified industries, and especially in the furniture and carriage departments, where small pieces are used in large quantities, that it would be good policy to work up every scrap of debris, large enough to make a chair rung or a buggy seat spindle. That such is not the case, is owing to the fact that the labor of making them, and the expense of handling the small debris overcomes the profit, and it is far better and more economical to burn it at once, and cut full sized lumber into the required shape. That a finer manipulation of lumber at the mills would be profitable there can be no doubt, but profit must be sought in making less sawdust, and no slabs. That this is, comparatively speaking, practicable, the practice which exists at many mills, notably those on the lower Mississippi, is abundant evidence.

A Michigan manufacturer visiting a mill at any of the towns on the lower Mississippi, looks in vain for such piles of slabs as he is accustomed to at home. The logs are simply "skimmed" to a face, and the first board is sawed, some of it to no more than three inches wide. The butt slabs are worked into pickets or lath and the resultant debris is simply an edging, fit only for firewood, but some of these are saved, tied up with a piece of marlin into bundles and sold. It is in this closer manufacture, rather than in the utilization of the waste into smaller articles, that the finer manipulation question is to find its practical solution.—*Northwestern Lumberman.*

ST. JOHN, N.B., EXPORTS.

The *Daily Telegraph* gives the following list of clearances of lumber laden ships from St. John, N.B., during December, 1881 :—

Date. 1881.	*Vessel.*	*Tons.*	*Shippers.*	*Destination.*	*Deals.*	*Pine.*	*Birch.*
Dec. 2	H. N. Hart	1,460	Alex. Gibson	London	1,195	..	..
" 3	Maori	656	"	Londonderry	586	..	..
" 3	Avonmore	1,386	"	London	1,212	..	..
" 5	John Campbell	728	"	"	610	..	..
" 8	Andrew Johnson	2,005	W. M. Mackay	Liverpool	1,490	..	..
" 9	Bertie Bigelow	1,142	S. Schofield	"	167	257	818
" 14	Frank Stafford	1,169	Alex. Gibson	"	930	..	..
" 19	Annie Stafford	1,296	"	London	1,150	..	..
" 23	Livingstone	640	R. A. & J. Stewart	Marseilles	525	..	..
" 23	Rialto	1,401	Guy, Bevan & Co.	Liverpool	1,270	..	..
" 24	Arabella	1,116	Alex. Gibson	London	905	..	..
" 27	Magdala	275	Carvill, McKean & Co.	Bristol Channel	249	..	..
" 29	Antwerp	573	"	Dublin	467	..	..
		13,913			10,746	257	818

SHIPPERS.

The following is a statement of the individual shipments from St. John in 1881 :—

Shippers.	*No. of Vessels.*	*Deals, etc.*	*Pine.*	*Birch.*
Alex. Gibson	92	80,234,000	....	....
R. A. & J. Stewart	70	49,764,000	....	....
Carvill, McKean & Co.	50	28,891,000	....	....
W. M. Mackay	21	19,738,000	485	2,574
Guy, Bevan & Co	34	19,722,000	....	188
S. Schofield	10	3,496,000	1,062	1,512
McLachlan & Wilson	3	671,000	....	852
Sundry parties	2	716,000	....	....
Totals	282	203,232,000	1,547	5,126

The following is a summary of the destination of shipments from St. John during the year 1881 :—

Destination.	*Deals, etc.*	*Pine.*	*Birch.*
Liverpool	69,199,000	1,485	3,905
London	24,586,000	....	....
Bristol Channel	27,011,000	25	6
Clyde	7,763,000	....	....
Ireland	42,251,000	37	19
Other ports in the U. K	8,023,000	....	1,008
Continent, etc	24,399,000	....	188
Total	203,232,000	1,546	5,126

UNITED STATES TIMBER LANDS.

Of the twenty-six states east of the Rocky Mountains only four—Maine, Michigan, Minnesota and Wisconsin—are now able to furnish supplies beyond what they themselves need. It is a remarkable fact, however, that nearly every state in the Union exports timber. Maine is so far denuded of what once were thought inexhaustible supplies, and the mills are being stocked to a large extent with logs cut from saplings of only six and eigh inches in diameter. Much of the timber so recklessly destroyed is used, not to supply its own needs, but to ship into neighboring states and abroad. Ohio forests of walnut have almost all disappeared. There have now been cleared upwards of 10,000,000 acres of this valuable timber, which it would take half a century to restore. Fires, insects and the axe have almost entirely denuded New York of its timber. The northern sections of Michigan and Wisconsin are well supplied with pine, better perhaps than any other states in the Union, but it is thought that the timber will not last eight years longer. Lumbermen have now to seek the head waters of the tributaries. No reliance can be placed on Canadian supplies. From the Province of Manitoba to the Gulf of St. Lawrence there is not as much spruce, pine, hemlock, ash, oak, elm and other commercial woods as would supply the present consumption of the United States for three years.

All the accessible pineries have been run over for salable timber, and some of the Canadian lumberers have trespassed upon our northwestern territories in their efforts to secure board wood timber to supply the English demand. The value of the annual product of our forests is said to be near $1,000,000,000. A very large proportion of this is obtained in a legitimate way, but millions—billions, in fact—of feet of splendid timber are annually stolen. The trade in this stolen timber in Northwestern Florida is immense, and gives employment to thousands of men. Timber stealing is not confined to Southern States, In the north and west some of these timber thieves buy government land at settlers' rates, and after they have cut and sold the timber allow it to go back to the government in default of taxes ; thus not only swindling and robbing the government, but preventing actual settlers from gettting possession of the land. Others evade the law by getting the Indians to cut the timber from government lands, and have them haul it to safe places beyond the jurisdiction of the government, when they buy it, paying only the price of cutting it. Probably not less than 30,000.000 people in the United States are warmed by wood fuel, consuming annually about 100,000,000 cords. In 1871 Chicago alone consumed the wood taken from 10,000 acres of forest land. Steamboats, railroads, etc., consume in the same way about 35,000,000 cords. The railroads consume an enormous amount of wood for ties, bridges, fences, etc, The amount of wood consumed by mechanical industries is very large. People may realize to some extent how large the amount must be by simply taking a look at the objects before their eyes in their houses, when they will observe how very few are the articles that are not wholly or in part constructed of wood.—*Ex.*

PROMOTING FOREST CULTURE.

A committee consisting of citizens of Medford, Stoneham, Winchester, Maldon and Melrose, Mass., has been formed for the purpose of taking executive action to promote timber in the old commonwealth. It is assumed that areas in the state, like Middlesex Fells, are more than for anything else fit for growing forests, and that such areas, consisting of land, ponds and marshes, can, and should be devoted to this purpose. Such tracts should be converted into public domains for the reproduction of forests. In furtherance of the plan the committee recommends that the state legislature be petitioned to pass an act for the reproduction of forests. The first section of the proposed act has been drawn by the committee, and reads as follows :—

"Where any town, by a vote in a legally called town meeting, or any city, by its mayor, aldermen and common council, shall resolve that any portion of the territory of said town or city ought to be devoted to the preservation, reproduction and culture of forest trees, for the sake of timber, or for the preservation of the water supply, and its appropriation for the purchase of the same, together with donations for that purpose, shall equal the assessed value of all the real estate included in it, said tract shall become a public domain, subject to the regulations hereinafter prescribed."

It will be seen that the preservation of ponds and water courses by overshadowing timber is a part of the committee's plan.

THE London *Timber Trades Journal* of Dec. 24th, says that the steamers now are mostly in, and when they come to be summarized will be found to exceed in tonnage and size any that have previously entered the docks timber laden. Amongst the biggest were the *Wheatfield*, *Barcelona*, and *Avlona*, from Quebec ; and the *Wm. Dickenson*, from St. John. This latter was the largest by some 300 tons, and turned out over 700 standards of spruce deals.

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First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition.....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

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Rapid Tree Growths.

According to a report of the Horticultural Society of Madras two trees in the Botanical Garden there display the marvellous rapidity of tree-growths in tropical countries. The rain-tree (*Pitheco obium saman*) in the gardens, the measurements of which were given in the proceedings of the society 7th of August, 1878, and then believed to be under six years from the seed, continues, in spite of its having been necessary to amputate some of the largest limbs to grow enormously. Measured on the 30th of July last it gave in girth nine feet four inches at the ground, six feet three inches at three feet high, and five feet nine inches at five feet high; in spread about eighty-five feet from north to south, and a total height of about 46 feet. A reference to the former measurements shows that the girth at three feet from the ground has increased in the last five years two feet two inches. The age of the tree is, if anything, over estimated; but searches is being made for traces of the receipt of the seed, which it is believed came from Ceylon about 1872. A casuarina tree, standing alongside, which was the specimen of its order when that part of the ground was laid out at the Botanical Garden, and is therefore known to be about ten years old, now measures at five feet from the ground, only two feet eight and a half inches, though it is about eighty-two feet high.

By Rothschild & Co,'s monthly circular, it is shown that the value of lumber shipped to foreign ports, from Puget Sound during the month of November, 1881, was $33,135. The lumber went to Melbourne, Australia; Levaka, Fiji Islands; Maubanills; Hong Kong, China, and Chili, South America.

THE stock of American black walnut in Liverpool, England, is stated to be exceedingly small in good logs, and any that might be offered would find a ready and satisfactory sale.

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Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

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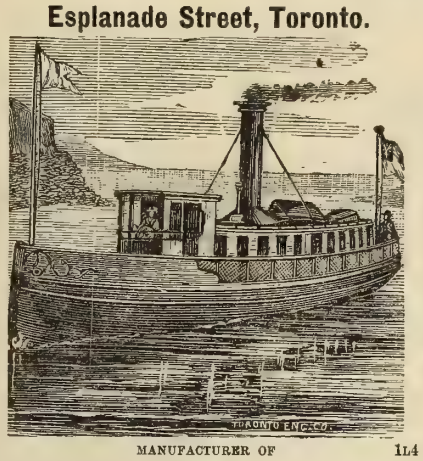

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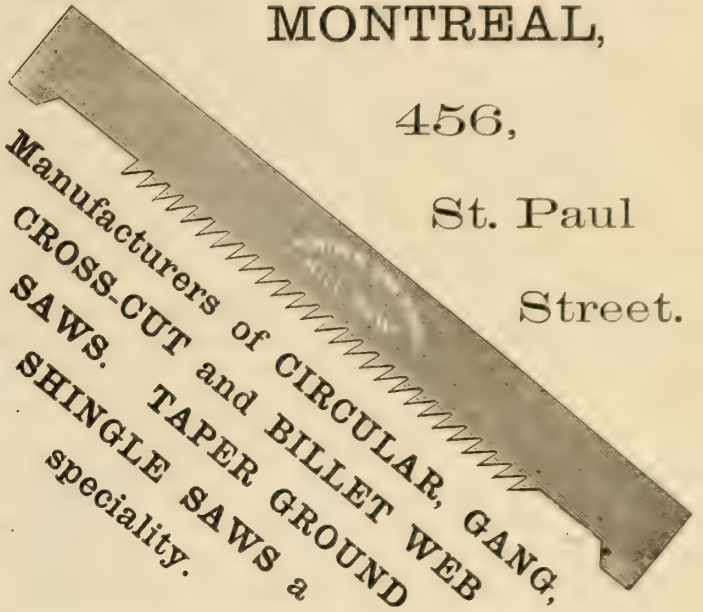

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SAGINAW MEN IN ONTARIO.

The *Lumberman's Gazette*, of Bay City, Mich., in an article on the recent sale at Toronto of timber limits in the Muskoka and Parry Sound districts, says:—"A significant feature of this sale was the presence of Saginaw lumbermen. There has been an active demand for pine lands in Michigan during the past season, and some large transactions have been reported, in fact, about all the available pine in the state have been picked up by syndicates and capitalists, while prices have largely appreciated. The fact that Saginaw river lumbermen are going into Canada after lumber, however, is something of an innovation, and can be accounted for on the theory that pine timber on this side is getting scarce and that the future of prices warrants investment in Canada lands. Possibly some of the lumbermen are also looking ahead at the bare probability that the discussion of free trade may result in the lifting of the duty on lumber. The Saginaw parties who purchased berths at this sale were Mayor Hill, C. W. Wells, A. T. and L. W. Bliss. Their purchase included about 88 square miles, and it is heavily timbered."

CHICAGO DOING.

We make the following extracts from the *Tribune's* exhaustive review of the year's trade:—The third interest in Chicago's great commercial trinity, the lumber trade, has made wonderful progress during the year just closed. True to its reputation of former years, it has continued to spread until very few portions of the country west of the Alleghanies where railroad communication is had with Chicago can be found where the products of the Michigan forests are not in greater or less measure utilized for the manifold purposes to which lumber is applied. The old trade barrier which has in the shape of an imaginary line divided the working field of the Chicago lumber merchants from that claimed by the lumbermen of the Mississippi Valley has been swept away during the active season of 1881, and thousands of car loads of pine lumber billed by Chicago merchants have invaded the Upper Mississippi country. This strong trade wind has made itself felt strongest, perhaps, in the South and Southwest. All through the season builders and railroad contractors in Missouri, Kansas, Texas, New Mexico, and even Mexico have checked their extra baggage through to Chicago when they have started out for lumber, coming through St. Louis as if unconscious that that burg was the headquarters of the Upper Mississippi lumber trade, and on landing here finding what they wanted without the least trouble, seen one of the greatest feats of commercial enterprise, as shown by Chicago's resurrection from the ashes, and gone home completely satisfied.

Chicago lumber during the year just closed has traversed the entire breadth of the country from Maine to Oregon, several consignments having been made to the former region, where the pine supply is becoming exhausted and the spruce is not available for the needed purposes, and to the latter where, although the coarser pines abound, there is little of the finer sort, and no facilities at present for utilizing the native growth.

The Lumberman's Exchange, which in years before had been simply a small underground room hired by the Lumberman's Association, where ill-attended meetings were held occasionally, and where the accounts of the association were kept by the simplest sort of single entry, became last year a guide as well as a source of power to the lumber merchant, and he has now come to believe in the value of statistical completeness as exemplified by the work of the present Secretary, Mr. George W. Hotchkiss, who has so systematized the labors of his office as to grasp and record even the minutest item of interest to the colossal trade, which in 1856-7 was represented only by a standing committee of the Board of Trade, and which now boasts of $60,000,000 capital.

As compared with the receipts of 1880, the year of 1881 shows an excess in round numbers of 290,000,000 feet of lumber, and 136,000,000 shingles, together with a proportionate increase in lath, posts, and other coarser forest products.

The lumber interest of Chicago, which ten years ago it was thought had reached its fullest proportions, has made an advance, so far as the bulk of trading is concerned, beyond any previous year of its history. Commencing on Jan. 1 last with a stock on hand of 497,840,673 feet of lumber and 188,720,000 shingles, receipts came in at an average of over 6,000,000 feet of lumber per day for the 300 working days of the year. During this entire time the receipts, enormous as they were, hardly kept pace with the demand, of which but a small proportion was for city use. During the entire season of navigation the average number of cars required daily for the filling of outside orders on the lumber market was over 600, and much delay and embarrassment was caused the greater part of the time during the summer on account of the inability of the railroads to meet the demands of this great interest.

Of the 1,853,040,000 feet received during the year, about 412,000,000 feet were absorbed by building operations in Chicago and its suburbs.

The extent and gross value of forest products handled during the year may be stated as follows:—

	Bulk.	*Value.*
Lumber, ft	1,853,000,000	$40,810,000
Shingles, No	785,400,000	1,600,000
Lath, No	104,000,000	208,000
Cedar Posts, No	3,000,000	450,000
Railroad ties, No	5,000,000	1,700,000
Cordwood, cds	40,000	280,000
Slabs, cds	25,000	100,000
Tanbark, cds	30,000	300,000
Telegraph poles, No	90,000	900,000
Total		$45,648,000

The total receipts by lake during the season of navigation were 1,622,783,000 ft lumber and 718,633,000 shingles.

The lumber output in the Upper Mississippi region for the year 1881 was, in round numbers, 1,400,000,000, while that of Michigan was 3,500,000,000 ft.

The year now closing probably gave larger profits for the dealers than any year since the great fire. During the boom in July and August, when ordinary piece-stuff was selling at $11.75@12.00, the large lumber firms were straining every nerve to meet the unprecedented demand for shipment, and, as has before been said, failed to keep up with the urgent call, or to fill promptly orders that came even from the territory naturally belonging to the upper Mississippi region.

During the latter part of the summer and almost up to the close of navigation much trouble was experienced from lack of dock-room, or rather from the inability of yard-owners, to pile and classify their stock as fast as it arrived. This cause of itself had a depressing influence on the cargo market for the time being, and tended to delay shipments by rail to some extent. Several of the largest lumber firms with mills at Menominee, Grand Haven, and elsewhere made preparations by the building of docks early in the season to pile largely at the mills during the summer, and thus save overcrowding at the yards in this city, and at the same time have a good assortment of lumber to draw from during the winter. This plan has hardly been carried out, for the reason that the demand for lumber throughout the season of navigation was so heavy and continuous that it could not be spared from the market. Several large firms owning mills across the lake had to buy largely of others near the close of navigation in order to keep up a well-assorted stock in their yards here.

One feature of the trade for several years past, the occasional shipments in deals, or three inch clear plank, for the English market, has been missed the past season. This was accounted for by the extreme prices realized during the summer which would have rendered such shipments unprofitable, as lumber of that description commanded better prices in this market than was paid for it in Canada.

The following table shows the cargo prices of prominent descriptions of lumber at the periods named:—

	May 10.	*July 31.*	*Nov. 30.*
Piece stuff, ordinary length green	$ 9.50@10.00	$11.75@12.00	$12.00@12.50
Dry in. boards No. 2 logs	12.00@12.75	12.00@13.50	13.50@15.00
Boards & strips	12.00@16.00	14.00@15.00	14.00@14.50
Norway strips and boards	11.50@16.00	11.25@11.75	12.00@13.50
Shingles, A	2.60@ 2.65	2.80@ 2.95	2.70@ 2.85
Shingles, std	2.40@ 2.50	2.60@ 2.80	2.65@ 2.80

The yard trade through the winter was good, and long before the opening of navigation many classes of lumber were exhausted, dealers being obliged to resort to reciprocal exchanges in order to meet the wants of their customers. At the full opening of navigation, May 6, the stock on hand in the yards was 228,556,664 feet of lumber and timber, and 73,698,575 shingles, against 238,483,874 feet of lumber and timber and 115,116,000 shingles at the same date the year previous. Of the former quantities, 21,269,000 feet of lumber and 26,200,000 shingles had been brought in by vessels that had managed to evade the heavy ice which hugged the south shore of Lake Michigan up to nearly the first of May. Trade from this point on was remarkably good. At a meeting of the trade called at the instigation of the "bears," May 21, for the purpose of reducing rates on some portions of the yard list, the movers were defeated, and at a subsequent meeting on the 27th of May the price list adopted early in the month was reaffirmed. The month closed with a firmer feeling on all classes of stock.

Following were the official yard prices at the dates named:—

	Jan. 24.	*June 27.*	*Nov. 26.*
Dimension	$11.50@13.50	$13.00@15.00	$14.50@17.00
Fencing	11.50@13.50	12.00@14.00	13.00@15.00
Com. boards	13.50@15.00	14.00@16.00	15.00@17.50
No. 2 boards	11.50	12.00	13.00
Flooring B.	32.00	33.00	35.00
Third Clear	38.00	39.00	43.00
First Clear	43.00	44.00	47.00
Lath	2.25	2.25	2.75
Shingles, A	2.90	3.15	3.20
Shingles, std	2.65	3.05	3.10

The following figures bear on the condition of the stocks at the close of the year:—

	Lumber.	*Shingles.*
Stock in yards Dec. 1	620,781,223	263,262,174
Excess of shipments during the month	129,598,000	41,310,000
Estimated stock Jan. 1	525,908,223	230,352,174
Stock Jan. 1, 1881	497,840,673	188,722,000

The bulk of our hardwood lumber is received from the forests of Michigan, Wisconsin, and Indiana, but the finer qualities, such as black walnut, come from North Carolina, Tennessee, and Kentucky, while the Southern pine is largely obtained from Alabama, or from Jefferson county in that State. Altogether the receipts of hardwood lumber have been over 250,000,000 feet, 60,000,000 feet of which has come from the South. The value of the Southern lumber received here footed up in the vicinity of $3,000,000, while that from the more northern forests represented fully $5,000,000. These latter receipts were made up of maple, ash, basswood, oak, etc., used for furniture and building purposes.

No data is known to exist by which a complete history of the receipts and shipments of lumber at Chicago can be traced to a date earlier than 1843, although it is stated by those engaged in the business that the trade had in 1843 acquired a volume not exceeding 12,000,000 feet, which was steadily increased until 1847, beginning with which year we may trace its increase to the present time, as follows:—

	Lumber.	*Shingles.*
1847	32,118,225	12,148,500
1850	109,364,779	55,423,750
1860	262,494,626	127,894,000
1870	1,018,998,685	652,091,000
1871	1,039,328,375	647,595,000
1872	1,183,659,280	610,824,420
1873	1,123,368,671	517,923,000
1874	1,060,688,700	619,278,630
1875	1,157,194,432	635,708,000
1876	1,039,785,265	566,978,000
1877	1,065,405,362	546,442,000
1878	2,179,984,710	692,544,750
1879	1,467,720,091	670,956,000
1880	1,564,538,118	650,922,500
1881	1,853,040,000	785,430,000

The usual flight of speculations regarding the forest outcome of next year has appeared more especially in journals devoted to the lumber interest. As to the reliability of these numerous predictions little can be said. The prospects, however, for next year may be summed up in the remarks of a prominent lumberman of this city, who asserts that the mills will probably increase their capacity, and will find material enough to keep them in operation throughout the working season.

An exchange, speaking of the destruction of our pine forests, says:—

It is asserted that during the season just closed more than six billions (6,279,950,000) of feet of lumber have been felled in Michigan, Wisconsin and Minnesota. The logging this summer will swell this amount to seven and a half billions (7,420,950,000) of feet. As the census agents report that the whole quantity of pine timber standing in these three States is but eighty-one and a half billions (81,550,000,000) of feet, a simple sum in division will show that the supply will only last twelve years if the present rate of destruction is kept up, and there is no way of supplying the loss, since once the pine is cut off a growth of hard wood follows, which is not only slow of growth and of the scrub variety, but is practically useless for building purposes. The Maine pineries are also comparatively exhausted, lumbering operations now being confined to spruce. Michigan lumber has even been shipped to Bangor, indicating that the home supply there is giving out.

According to the journal of the Agricultural Society of France, the acreage of forest in Europe, north and south, is 100,000,000 to 150,000,000. These, however, especially outside of Germany, are rapidly thinning out. In Germany great pains are taken to foster the growth of forest trees, and the labors of that Government have thus far been well rewarded.

MOUNTAIN RAPIDS.

The following letter appears in the Ottawa *Citizen*:—

DEAR SIR,—Some time ago I saw by the papers that the Government had sent engineers to examine the Mountain Rapids above Mattawa with the view of building a dam at that place. I have not as yet seen their report, but hope they found the scheme feasible. If a dam was also built at the natural outlet of Kippewa Lake, but so arranged as not to interfere with the driving of timber and logs through Messrs. T. and C. Smith's improvements; both dams would, in my opinion, be a great benefit to the lumbermen and farmers along the Ottawa River. The two extremes of high and low water would, no doubt, be a thing of the past, as the dams could be so arranged as not to allow too much water to pass in the spring and keep a large portion of the water for the months of August and September, when the water is most wanted for the timber trade. Square timber would be almost certain to reach the Quebec market every year that it reached the Ottawa River, and saw logs could be driven all summer without any fear of being stuck and could be driven cheaper than at present. The Government are having dams built at the head of the Calumet Rapids and in the Rocher Fondu Chenail, which, I think, may have the effect of drowning considerable land along the Calumet Chenail in the spring, and of course the proprietors of the land will look to the Government for damages, which they have a right to. Now, by building a dam at the Mountain, all trouble would be avoided with the land owners on the Calumet Chenail and environs. Sir Hector Langevin has always been favorable to improving the Ottawa River. I hope John Poupore, M.P., and Peter White, M.P., will see to this matter and urge and the Government on the necessity of building the dams. By giving this a place in the *Citizen* you will much oblige

AN OLD LUMBERMAN.

Umbrellas and Pepper.

The umbrella trade grievously threatens the existence of the pimento plantations of Jamaica. An official estimate made in Kingston, last fall reckoned that more than half a million umbrella sticks were then awaiting export to England and the United States. These sticks were almost without exception pimento, and it is not surprising to be informed that owners and lessees of pimento walks are becoming alarmed at the growth of a trade which threatens to uproot, in a few years, all the young trees. The export returns for the past five years show an average of 2,000 bundles of sticks sent out of the island annually in the ordinary course of trade, and the returns for the first three-quarters of 1881 show an export of over 5,000 bundles, valued at $15,000. When it is remembered that each bundle contains from five hundred sticks, each of which represents a young bearing pimento tree, the extent of the destruction may be realized.—*Scientific American.*

NO HOSPITAL NEEDED.—No palatial hospital needed for Hop Bitters patients, nor large salaried talented puffers to tell what Hop Bitters will do or cure, as they tell their own story by their certain and absolute cures at home.—*New York Independent.*

ELECTRIC LIGHTING.

The Trent Valley *Advocate* says that Messrs. Gilmour & Co., of Trenton, intended for some time to light their new mill by means of the electric light, which was done for the first time on the evening of Monday, the 12th of Dec. The apparatus was purchased from the celebrated Brush Electric Light Co., of Cleveland, Ohio, and consists of what is known as a six-light dynamo-magnetic machine, which generates the electricity necessary for producing the light. This has been placed in the small engine room at the machine shop, and is driven by a twenty-five horse-power engine kept especially for that purpose. The current of electricity generated by this machine is conveyed by two insulated copper wires to the large mill, where connection is made with the lamps, which are six in number—three in the lower storey and three in the upper storey. Each lamp consists of two pairs of carbon pencils, the points of one pair being brought within a very short distance of each other, and as soon as the current is turned on a light of intense brilliancy appears between the points, which burn away slowly under the great heat, but are kept at the same distance from one another by a peculiar action of the current upon a magnet. As soon as one pair of carbons is consumed (which takes about seventeen hours) the current is at once automatically diverted from them to the other pair, which then commence to burn, and when these are consumed two new pair have to be placed in the lamp. The entire apparatus cost the Company only about $1,600, and the cost of carbon for the six lamps will not exceed ten cents per hour.

WASHINGTON TERRITORY SHIPMENTS.

From the *Resources of Oregon and Washington*, of Portland, Ore., some interesting facts are obtained regarding timber shipments from Puget Sound. The exports from the Sound of lumber, shingles, lath and pickets have not materially increased during the last eight years, but the value of spars exported has risen from $17,745 in 1870 to $245,588 in 1880, thus showing that the advantages of the Douglas fir as spar timber is coming to be appreciated. No official report whatever is made of the quantity of lumber sent from Puget Sound saw mills to California, but the following table shows the amount shipped by coasting vessels during the month of August, 1881 :—

	Feet.
Fir	18,436,610
Spruce	2,637,457
Cedar	440,387
Piles, lineal ft	111,402
Spars, "	2,651 :
	Number.
Lath	3,395,400
Wool slats	30,000
Ship knees	57

This is equivalent to considerably over 20,000,000 feet, board measure, shipped from Puget Sound during one month, which can be considered an average, and for which Washington received no credit. On the contrary, if that lumber was re-shipped from San Francisco to foreign countries, as is undoubtedly the case with much of it, California would get the credit in the Government reports. Washington, with its grand resources and unexcelled climate, offers great inducements to those who wish to work unfettered by competition or limitation.

Exhausting the Timber Supplies.

The *United States Economist* says the now well known fact is that we are rapidly exhausting, largely by reckless and improvident waste, our supplies of timber in the Northern States. The demand for it increases at the rate of 30 per cent. a year, and even those who are interested in high prices and immediate sales of what is left of it admit that in twenty years or sooner building timber will be extremely scarce, and that in many parts of the country, yet supplied in part from their own soil, it will have entirely disappeared. It is stated on good authority that more than 65,000 establishments, employing 400,000 persons, and using material to the value of over $350,000,000 a year, are engaged in the United States in manufacturing articles entirely from wood, in addition to 8,000,000 persons partly employed on wood, or using that material yearly, to the value of $6,000,000. No country can be or ever has been despoiled of her timber and flourish.

NOVA SCOTIA.

From our own Correspondent.

Messrs. Miller & McKeen are preparing for a large lumbering business at Economy, N. S. Their new mill will be completed by the opening of the spring. They have over eighty men in the woods, logging and building reserve dams on the river. They are a new firm here, and, unlike some of their predecessors, they pay as they go. Their possession of a large and unculled area of good lumber land, and their energetic and systematic way of doing things, give promise of success, and have already won for them general respect.

B. Young has heavy forces of men and teams logging to his mills at River Hebert, Half Way River Lake, and Ship Harbor. He is an old hand at the business, and has a large stock of business energy and tact.

E. D. Davison & Sons, Bridgewater, shipped over fourteen million feet during the past year. They are preparing to put in about ten million feet this season, beside what they will buy.

There is very little snow here yet, and the swamps and ponds are entirely open, so that operations have to be entirely confined to yarding and making roads and bridges.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

HAVE HOPE.—Before you despair of curing a troublesome cough just verging on consumption try Hagyards Pectoral Balsam ; it has cured others, why may it not cure you ? All dealers sell it.

ALL OUR DRUGGISTS now heartily endorse the amazing success of Mack's Magnetic Medicine, and recommend it for both sexes in all cases of sexual weakness. See advertisement in another column.

RHEUMATIC REMEDY.—There is no better cure for Rheumatism than Hagyard's Yellow Oil used according to directions on the bottle. It also cures Burns, Scalds, Frost Bites, Bruises, lameness and all wounds of the flesh. All dealers sell it, price 25 cents.

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

WORTHY OF PRAISE.—As a rule we do not recommend Patent Medicines, but when we know of one that is really a public benefactor and does positively cure, then we consider it our duty to impart that information to all. Electric Bitters are truly a most valuable medicine, and will surely cure billiousness, Fever and ague, Stomach, Liver and kidney complaints, even where all other remedies fail. We know whereof we speak, and can freely recommend them to all.—*Exch.*—Sold at fifty cents a bottle, by Taylor & Macdonald.—6.

CANADIAN PACIFIC RAILWAY.

Emory's Bar to Port Moody.

NOTICE TO CONTRACTORS.

Tender for Work in British Columbia.

SEALED TENDERS will be received by the undersigned up to NOON on WEDNESDAY, the 1st day of FEBRUARY next, in a lump sum, for the construction of that portion of the road between Port Moody and the West-end of Contract 60, near Emory's Bar, a distance of about 85 miles.

Specifications, conditions of contract and forms of tender may be obtained on application at the Canadian Pacific Railway Office, in New Westminister, and at the Chief Engineer's Office at Ottawa, after 1st January next, at which time plans and profiles will be open for inspection at the latter office.

This timely notice is given with a view to giving Contractors an opportunity of visiting and examining the grounds during the fine season and before the winter sets in.

Mr. Marcus Smith, who is in charge at the office at New Westminister, is instructed to give Contractors all the information in his power.

No tender will be entertained unless on one of the printed forms, addressed to F. Braun, Esq , Sec. Dept. of Railways and Canals, and marked "Tender for C. P. R."

F. BRAUN,
Secretary.

Dept. of Railways and Canals, Ottawa, Oct. 24th, 1881.

12d10 1L3

Caledonian Hotel,
GRAVENHURST.

JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station. Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. 1L10

Simcoe House,
CORNER FRONT and SIMCOE STS.
TORONTO, ONT.

☞ Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms. 1L21 WILLIAM HANCOCK, Proprietor.

The American Hotel,
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RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.

☞ Every accommodation for Commercial and LUMBERMEN.

1Ltf W. D. McDONALD, Proprietor.

J. DAVIES & Co.
46 Church Street, Toronto.

Sells all sort of Lumber on Commission. Advances on Consignments. Prices given on application. Whole Stocks disposed on very low Commission. 1L11

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Commission, Shipping, Forwarding and General Agent.
LUMBER MERCHANT
Office, Tempest's Block, Port Hope. 1L1

FRANCOIS MARCHAND,
Manufacturer of all Descriptions of
STEAM BOILERS,
SHIPS WATER TANKS, Etc.
St. Roch Street, 1L7 QUEBEC, P. Q.

CANADA TRUSS FACTORY
(ESTABLISHED 1856.)
F. GROSS,
Manufacturer of SURGICAL and ORTHOPŒDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description. 1L14
688 and 690 Craig Street, Montreal.

P. PAYETT'S NEW IMPROVED
Adjustable Saw Guide !
Can be adjusted without danger. You can take your saw off without taking the guide off the frame.

All kinds of Brass & Iron Casting

PLAINING and TURNING done with Despatch. For particulars address :
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PENETANGUISHENE. 1L12

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EPPS'S COCOA
BREAKFAST.

"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*

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Coughs, Colds, Sore Throat, Asthma, Croup, Whooping Cough, Bronchitis, and all Lung Diseases.
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Flexible Board Rules,
With Steel Head, either Cleveland or London make, at $1.75 Each.
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BELTING, FILES, BABBIT METAL, CHAINS, ROPE, and 1L12
LUMBERING SUPPLIES.

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Price List on application and Sample Order solicited.

Re-ground and re-cut by Hand and Warranted equal to NEW for use, at prices that will effect a great saving to Mill Owners and all large consumers of Files. Parties now sending their old files can have them shipped next spring to their order

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WISDOM & FISH
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Rubber and Leather Belting
RUBBER HOSE, STEAM PACKING,
LUBRICATING OILS, COTTON WASTE
Wrought Iron Pipe and Fittings,
And all Articles used in the Application of Steam to Machinery.
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(SMALL'S BLOCK.)

N.B.—Estimates for Steam and Hot Water Heating Apparatus furnished on application. All work Warranted. 1L15

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CONSTIPATION
and a thousand other diseases that owe their origin to a disordered state of the Stomach and Bowels, and inaction of the Digestive Organs, when the use of
DR. HENRY BAXTER'S MANDRAKE BITTERS
will give immediate relief, and in a short time effect a permanent cure. After constipation follows Biliousness, Dyspepsia, Indigestion, Diseases of the Kidneys, Torpid Liver, Rheumatism, Dizziness, Sick Headache, Loss of Appetite, Jaundice, Apoplexy, Palpitations, Eruptions and Skin Diseases, etc., all of which these Bitters will speedily cure by removing the *cause*. Keep the *Stomach, Bowels, and Digestive Organs in good working order and* perfect health will be the result. Ladies and others subject to SICK HEADACHE will find relief and permanent cure by the use of these Bitters. Being tonic and mildly purgative they
PURIFY THE BLOOD
by expelling all Morbid Secretions.
PRICE 25 CTS. PER BOTTLE.
For sale by all dealers in medicine. Send address for pamphlet, free, giving full directions.
HENRY, JOHNSONS & LORD, PROPS., MONTREAL.

Travelling Agent.

MR. A. L. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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Special rates will be made for page, half page and column advertisements.

Advertisements intended for insertion in any particular issue should reach the office of publication at east three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. JAN. 16, 1882.

A MICHIGAN lumberman, sometime during the past season, bought a tract of pine land, for which he paid $10,900. A few weeks he sold the same tract for $23,500; which should have satisfied the most greedy speculator.

THE Bobcaygeon *Independent* says that Mr. Hugh Regan, foreman of one of Mr. R. C. Smith's shanties, on the 25th of December had cut 26,000 logs, and of those 10,000 had been drawn to water. So good a return it would be difficult to match in this neighbourhood.

THE Orillia *Packet* says that Mr. P. Shaw, No. 20, has nearly a million feet of logs cut and skidded, and had begun to truck them in, when the merry jingle of sleigh bells changed the tune. He is keeping the mill going cutting lumber, shingles, lath, planing lumber, and grinding grain.

DURING the season of 1881 the Flint & Pere Marquette railroad, in Michigan, carried 98,964,559 feet of logs, all of which, except 15,000,000 feet, went to the Saginaw river. During the same period the Detroit, Mackinac & Marquette road conveyed to the Saginaw river about 15,000,000 feet of logs.

THE Culbute dam, at Bryson, on the Ottawa, was finished on Monday, January 2nd, the last pier or key being put into position, and there now only remains some further filling in to make the structure more solid and complete the work. The dam has had the effect of raising the water about three feet higher than it otherwise would be.

The *Timber Trades Journal* says that the Marquis of Lorne and Princess Louise visited the establishment of A. & F. Halliday, at Eton, and ordered several pieces of furniture in American walnut to take with them on their return to Canada. Her Royal Highness said that the whole of the furniture they had taken out with them last time had gone to pieces in consequence of the climate, an assertion not very complimentary to the firm that supplied the goods.

MESSRS. IRWIN & BOYD'S annual sale at Nassau Mills on the 10th inst. proved a great success. The quantity offered was 1,200,000 feet, and every board found ready purchasers at prices considerably in advance of last year. The sale was largely attended by gentlemen from Toronto, Whitby, Stirling, &c., and they were the chief purchasers.

H. H. HUNNEWELL has a contract to plant 550 acres with catalpa trees in Kansas, for Mr. Douglas, of Waukegan, Ill. The soil, the first year, is planted with corn, and afterwards the trees are set out. They are placed four feet apart, and take nearly 3,000 to the acre. The agreement is to take care of them for three cents apiece, until they are old enough to take care of themselves.

THE oldest remaining half-timber house in Hereford, England, was offered for sale by auction recently. The building, which is in Butcher's Row, dates from 1621, and it is supposed that the architect was John Abel. The ornament on the gable suggests that originally the house belonged to a butcher. A large hall is within the building, with a chimney-piece on which the arms of the Tanners', Fleshers' and Butchers' Guilds are carved. The highest price offered was £1,475, but as the reserve price was £1,700, the property was withdrawn. It was afterwards purchased for the latter sum.

A CORRECTION.

The cut over the description of Hodgson's patent saw grinder in a few copies of our last issue was by mistake placed wrong side up. Our readers will get a correct view of it by inverting the paper.

A CHANCE FOR SOMEBODY.

Those of our subscribers who are engaged in, or have facilities for manufacturing broom handles, Venetian blind laths, clothes pegs, &c had better make the fact known through the columns of the *Canada Lumberman*, inasmuch as a Liverpool firm writes us for the names of some of the principal manufacturers of these articles in this country. A word to the wise should be sufficient.

1881'S OPERATIONS ON THE OTTAWA.

We have received from a reliable and well informed correspondent living in the Ottawa Valley the following statement of saw logs made on the Ottawa River and its tributaries in 1881, with stuck logs of 1880 added thereto, deducting therefrom stuck logs of 1881, thus showing the quantity sawn in the summer of the latter year:—

Made in 1880-81, Ontario side	249,246,200	ft. B. M.
" " Quebec side	357,796,600	"
Stuck in 1880, Both Provinces	42,369,600	"
	649,412,400	ft. B. M.
Stuck in 1881	203,718,200	"
Sawn in 1881	445,694,200	ft. B. M.

In the letter containing the foregoing figures our correspondent states that while it is difficult to obtain accurate information as to stocks on hand of sawn lumber, it is certain that such stocks are much lighter than usual, and that more than half of the sawn lumber in the yards and at the mills has been sold to American buyers, and is awaiting shipment either by rail this winter or boat in the coming spring.

The quantity sawn last year was small as compared with some previous years, owing to the very low water of last summer causing so many logs to be stuck on the rivers and streams—the quantity stuck in 1881 being nearly five times as much as that of 1880.

We also learn from the same source that the quantity of the timber of 1880-1 stuck in the River Ottawa and its tributaries, to come down in 1882, is as follows:—

Square White Pine	731,700 cub. ft.
Waney Board	138,000 "
Square Red Pine	88,820 "
Total	958,520 cub. ft.

A NEW OUTLET.

IT must be obvious to those who have given the matter a moment's consideration, that as soon as the missing link, which at present cuts in two that portion of of the C. P. R. between Thunder Bay and Winnipeg is completed, a new and valuable market will be opened up for the lumber, now manufactured on and about the Georgian Bay. Should the present North-west fever be maintained, the demand for all kinds of lumber on the prairies west of Winnipeg must be simply enormous and entirely beyond the capacity of local production. Even now lumber in various forms is being shipped from this part of Ontario to Winnipeg by rail. If it will pay to do that now, how much more will it pay to do it when it can be forwarded from the mills to Thunder Bay, and thence by a single railway corporation to wherever required, instead of by the present circuitious and costly railway route. So far back as during the financial year ending the 30th June, 1880, we find that there was imported into Manitoba from the United States lumber, timber and shingles to the value of $60,285, and upon which duties to the amount of $12,057 were paid, and also that during the same period manufactures of wood not elsewhere specified to the value of $63,454, upon which duties to the amount of $15,853 were paid, were imported. As in this item, doors, sash, &c. are included, they no doubt formed an important portion of the same. As all these items can, as soon as the Thunder Bay branch of the C. P. R. is completed, be quite as well and be much more cheaply supplied from our mills on the Georgian Bay, it can scarcely be doubted that our lumber trade with our own North-west must soon attain large proportions, and prove a valuable outlet for the trade.

MUSKEGON LUMBER.

The following is a special despatch to the Chicago *Tribune* from Muskegon, Mich., dated Dec. 30th, 1881:—The lumber season just closed has been one attendant with many unfavorable circumstances, yet upon the whole one of the most prosperous ever known here. The mills started out in the spring with the intention of clearing up the full stock of logs on hand and in the river, which amounted to about 725,000,000 feet—by far the largest stock ever put into the river for one season's operations. At the close of last year's business the lumber on the docks held over reached 70,000,000 feet, and the logs rafted and unrafted 125,000,000 feet. The mills cut 624,458,526 feet, which was nearly 90,000,000 feet more than the previous year (1879), and about 150,000,000 more than in 1878. With the new mills and with large additions to the capacity of the other ones, the mill-men figured on the largest lumber crop in the history of the trade here, and at the outset of the season's operations everything was favorable to such calculations. Late in the season, however, the scarcity of labor and the strikes upset the calculations, and, consequently, instead of the mills cutting over 700,000,000 feet, the figures reached only 632,541,632 feet. There is no doubt but that the strike lost to the mills between 60,000,000 and 70,000,000 feet of lumber, and the short hours since then a good deal more. Owing to the open winter, the mills have run much longer than usual, but on the ten hours system, and in many instances shorthanded. The cut for this year, notwithstanding the drawbacks, was the largest ever known here, and yet larger stocks are carried over to next season than ever before. For the past three years the amount of stocks on hand at the close of operations was as follows:—

	Logs, ft.	*Lumber, m.*
1879	115,000,000	75,000,000
1880	125,000,000	70,000,000
1881	225,000,000	98,070,339

The logs held over this year, rafted and unrafted, are given by the booming company at 225,000,000 feet, which will greatly help in preventing the log famine threatened by the present open winter. The total amount of lumber cut by the several mills for 1881, together with the cut of 1880, and also the manufacture of lath and lumber on hand, as compiled by the *Tribune* correspondent from figures furnished by the mill men, is as follows:—

Cut 1881	632,541,632
Cut 1880	624,458,526
Lath	104,815,850
Lumber on hand	93,070,339

The shingles manufactured on Muskegon Lake in 1881 amounted to 58,485,000.

For the past season the lumber products of Muskegon County have been simply enormous. There was manufactured—

Lumber, ft.	800,000,000
Shingles	125,485,000
Lath	145,000,000
Pickets	20,000,000

PROSPECTS FOR NEXT SEASON.

W. S. Gerrish and Col. Fuller, two of the largest log dealers in Michigan, have informed the *Tribune* correspondent that the log crop for next season will not exceed 500,000,000 feet, but if the present soft weather continues any length of time it may fall under that amount. This amount, with the 225,000,000 left over, would give for next season's operations 725,000,000 feet, or about the same as was put in last winter, the danger of a log famine can only be averted by a change in the weather. Under the new order of things in the woods snow is not absolutely necessary for lumbering. It enables the operators to get their logs into the rivers somewhat cheaper; but when there is no snow hard weather will answer very well. Loggers can make ice roads by the aid of sprinklers, which are in most cases preferrable to snow roads. The numerous railways and tramways now penetrating the pine forests have caused a revolution in lumbering, and logs can be carried to the rollways in almost any kind of weather. But as the greater part of the logging operations are carried on in the swamps, usually filled with water, hard, frosty weather is what the lumbermen are anxiously awaiting for. Should January and February be genuine winter months, and the thermometer go down far enough to freeze the swamps, the lumbermen will get in all the logs they need for next season's business. The logging railways can put in half of the 500,000,000 feet needed for a full crop, and two months' favorable weather would enable the balance to be drawn to the railways by teams. This figuring, however, is wholly dependent upon the weather. Five winters ago the weather was much the same as this winter. The camps were broken up and the men came out of the woods in January. The situation looked blue for the lumbermen, who had not quite recovered from the panic, but in February and March it snowed a full winter's supply, men were hurried back into the woods, and logs were rushed into the streams at a lively rate. There was no log famine that year, after all, and I don't believe there will be one this year either. With the prospects of as good prices for lumber as next spring holds out, the logs will be got into the river. The lumbermen have done it before, when the prospects were much gloomier than they are now.

NORTH WESTERN PINE CUT.

The *North-Western Lumberman* in its annual review gives the following fs the total production of pine lumber in the North-West for nine years:—

Years.	*Feet.*	*Years.*	*Feet.*
1881	6,605,500,000	1876	3,879,046,000
1880	5,651,295,006	1875	3,968,553,000
1879	4,806,943,000	1874	3,751,306,000
1878	3,629,472,759	1873	3,993,780,000
1877	3,595,333,496		

It says:—The figures in our table represent, as nearly as figures can, the amount of white pine lumber cut from the forests of the Northwest during the past nine years, and while in all reasonable probability they are considerably below the actual production, they represent the enormous aggregate of 39,881,229,261 feet. Loaded into cars it would just make a train that would about reach around the earth. To its producers it represents something like $600,000,000 received for the stock in the rough. The forests of Michigan have contributed about three-fifth of the entire amount.

An examination of the table will show that for six years, 1873 to 1878 inclusive, the limit of production was under 4,000,000,000 feet. The last three years, however, show remarkable strides, each season overlapping its immediate predecessor by nearly or quite 1,000,000,000, and to this must be added the still more significant fact that at the present time the stock of manufactured lumber in first hands, or in the hands of wholesalers at distributing points is not sufficient to meet the requirements of the trade.

HORACE GREELEY'S bad penmanship has passed into a proverb. No description of it without a fac-simile of the writing could convey any idea of its illegibility. It is charitable, however, to the old philosopher to suppose that the fault lay with the pens he had been accustomed to use, but what a world of grief and trouble would have been saved to the compositors if he had written his editorials with an Esterbrook Falcon Pen.

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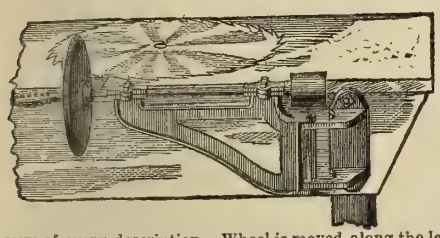

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Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

IL24 **T. HODGSON, AMHERST, NOVA SCOTIA.**

Taking Time by the Forelock.

Influential men in Austrialia are waking up to the importance of preserving the forests of that great continental island from further improvident destruction. The country is not overabundantly supplied with woody growths, at the best, the interior being one vast arid waste, devoid of forests. Such being the peculiar character of its natural features, the question of the future rainfall and water-supply becomes an important one. Evils which attend the destruction of forests are already felt in many provinces in an increased dryness of climate, longer drouths, and more numerous bush fires. A lesson is learned in this respect from the history of New Zealand since the settlement of the English. During thirty-eight years ended in 1868 the annual destruction of New Zealand forests was twenty-three per cent., and in the five succeeding years twenty per cent. It is proposed in South Australia that a block of 200,000 acres of land be reserved for systematic tree planting, and that in the first year $70,000 be expended on it, and in each of the eleven following years, $52,000, a total expense of $650,000. After the first five years there would be, it is estimated, a revenue from periodical thinnings, of $172,000, and in twenty-one years the colony would possess 310 square miles of forest.—*Northwestern Lumberman.*

W. W. & J. H. BARROWS, of Cameron, Pa., have built a slide six miles long, from their lumber woods to their pond at Cameron. They expect to put in 4,000,000 feet of short logs and 2,000,000 of long timber.

IT is stated that Capt. J. H. Williams, of Washington county, Pa., intends to plant 10,000 walnuts. He will sow them in rows; after two years will thin out, leaving only the thrifty trees; in five years will cut young walnuts for table legs; in eight years will cut again alternate trees for newel posts; in ten years will begin to harvest nuts by the thousand bushels, and in fifteen years will have walnut logs to sell.

CUTLER & SAVIDGE are having a survey made for a new logging railroad in Montcalm county, Mich., to be twelve miles long. It will extend from the first lake above the Six Lakes dam, on Flat river, in a north-easterly direction, to a point nearly north of Cedar lake, reaching a large tract of pine purchased about a year since. The road is to be ready for operation on June 1, next. There is 175,000,000 feet of pine on the tract that this road will open up.

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111 Acres of Land, Four Frame Houses, Etc.

Plenty Timber on Black River. Or, Mill and Limits two thirds cash. 1L2

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250,000 ft., board measure, of First Quality WHITE OAK TIMBER,

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150	Mlls.	White Pine,	1 x 10 Stock.
175	"	do	1 x 12 "
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140	"	do	1 inch Siding
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16	"	Cedar,	3 x 6 "
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Cherry, White Ash, Black Ash, and Dry White Pine Lumber.

Quote Price delivered, and Carefully Describe:—Quality, Widths, Length, Thickness, and how long Sawed.

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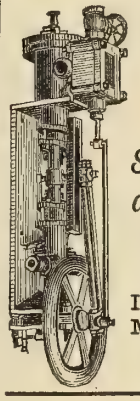

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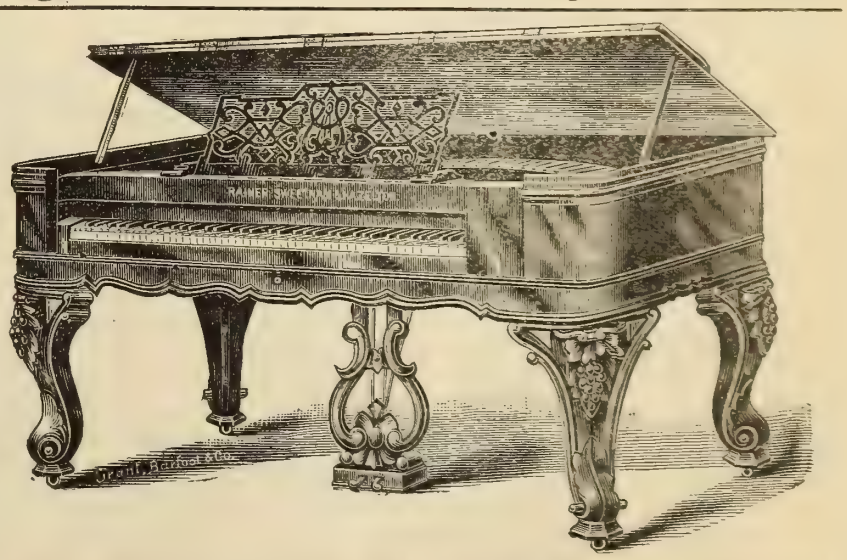

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OTTAWA ESTIMATES.

The following is an estimate of timber expected to be manufactured in the Ottawa country during the lumbering season of 1881-2, as prepared by the Quebec *Times* :—

Name.	*Locality.*	*Square White Pine. Feet.*	*Board Timber. Feet.*	*Square Red Pine. Feet.*
Barnet & Mackay	Bonnechere	250,000		200,000
Bell & Hickey	Temiscamang	190,000		10,000
Costello Brothers	Madawaska (Private lands)	30,000		20,000
R. Campbell & Son	Bonnechere	110,000		10,000
J. & G. Bryson	Keepawa	90,000	20,000	10,000
John R. Booth	Madawaska	130,000	100,000	
"	Matawin	70,000		10,000
"	Keepawa	100,000		
Boyd Caldwell & Son	Madawaska	350,000		
A. Caldwell & Son	Mississippi	150,000		
R. & W. Conroy	Madawaska	180,000	45,000	25,000
Pierre Charette	Gatineau (Private lands)	20,000		
J. B. Dickson	River Ottawa (Ontario side)	180,000		
"	" (Quebec side)	104,000	6,000	5,000
Alexander Fraser	River Coulonge	180,000		
"	Madawaska	105,000		
Fraser & McCoshen	"	120,000	80,000	50,000
McCoshen & Fraser	Sweyo	240,000		10,000
Sereeney & Fraser	Temiscamang (Quebec Side)	50,000		10,000
Allan Grant	Keepawa	800,000		100,000
Geo. A. Grier	"	170,000		
Hilliard & Dickson	Mississippi	160,000		
R. H. Klock	River Ottawa (Ontario side)	180,000		
Oliver Latour	Keepawa	190,000	60,000	
"	Temiscamang (Quebec side)	80,000		40,000
T. & W. Murray	Black River	100,000		10,000
C. Mohr & Co	Madawaska	75,000	25,000	
William Mackay	"	200,000		
"	Amable du Fond	150,000		
David Moore	Keepawa	260,000	40,000	
"	Dumoine	120,000		
J. P. Millar & Co	Black River	10,000		75,000
"	Bonnechere	10,000		50,000
McLachlin Bros	Madawaska	270,000	30,000	150,000
A. McLean	Petewawa	270,000		80,000
Peter McLaren	Mississippi	360,000		
Richard Nagle	Matawin	85,000	65,000	
Perley & Pattee	Petewawa	120,000	10,000	
John Roche	Peche Gatineau	13,500		
Smith & Mackay	Madawaska	120,000		
Thistle, Carswell & Co	Petewawa	200,000	50,000	50,000
J. Francis & Co	Madawaska	160,000		20,000
Thistle & Egan	Chalk River	50,000		20,000
George Taggart	Block A	75,000	75,000	
Richard White	Black River	110,000	20,000	25,000
A. & P. White	Maganicippi	260,000		
"	River Ottawa (Ontario)	90,000		
J. K. Ward	River Rouge	60,000		
Young & Bronson	Petewawa			35,000
Allan Grant	Black River and Dumoine	110,000		
		7,347,000	626,000	1,025,000

TIMBER STUCK FROM 1881 WHICH WILL COME DOWN IN 1881.

Name.	*Locality.*	*Square White Pine. Feet.*	*Board Timber. Feet.*	*Square Red Pine. Feet.*
Oliver Latour	Keepawa	260,000	76,000	53,000
David Moore	"	168,500	18,000	600
"	Dumoine	88,500		30,000
J. McLaren & Co	Temiscamang			2,820
McLachlin Bros	Coulonge	87,000	30,000	2,000
Sherman, Lord & Hurdmans	Keepawa	7,700		
Richard White	Black River	80,000	15,000	
Young & Bronson	Petewawa	40,000		
		731,700	138,000	88,820

SUMMARY.

Total Timber expected to be manufactured during the winter of 1881-2	7,347,500	626,000	1,025,000
Total Timber stuck of 1881	731,700	138,000	88,820
Total	8,079,200	764,000	1,113,820

Ottawa, 26th December, 1881.

THE TIMBER QUESTION.

We find the following paper by Jas. Little, of Montreal, in the proceedings of the Montreal Horticultural Society :—

Witnessing, as I did, while engaged in the business of lumbering, in the western part of the Province of Ontario, how rapidly one extensive timber section after another was stripped of its commercial wood, my attention was necessarily drawn to an investigation of the extent and sources of supply, both in the United States and Canada, of a material so indispensable in the industries which minister to the wants and well-being of every individual, rich and poor, of our whole people, and fully realizing that the question was beyond dispute one of the most momentous that could engage the attention of our authorities and statesmen, I have been laboring, for years, through the papers and in pamphlets, to impress upon them the necessity of adopting all possible measures for the preservation of our forests from waste, destruction by fire, the vandalism of the lumberers, and, by withholding from market such portions of our timber territory as remained unsold, keeping off, as long as possible, the terrible calamity of a timber famine in the country, but without effect. On the contrary, the Governments of both Ontario and Quebec, through their Crown Timber officials, who are generally lawyers, and consequently totally ignorant of the duties they are appointed to administer, have been doing all in their power to hasten the stripping of the country of its invaluable timber resources, by throwing them on the market, year after year, without any reference whatever to the requirements of the trade, until a clean sweep has been made of every patch of timber held by both Provinces. No less than thirty-four townships in Ontario—the last the Province possessed—were put on the market three years ago, neither the officials nor the purchasers being, at the same time, aware that nine-tenths of the territory contained no timber of any commercial value, and the last limit held by our own Province of Quebec was disposed of but a few months ago ; and this reprehensible course has been the means of stimulating production to such an extent, by bringing new operators into the field, that the foreign markets have been kept constantly glutted—the manufacturers, for several years prior to 1880, not realizing the cost of production.

Instead of being obligated, as they should have been, to cut the timber clean out of a place, the lumberers were all along allowed to run over their limits and cull out the best trees, from which one or two logs, as the case might be, that would saw out clear lumber were taken out of each, while the greater part was left to rot in the woods, or furnish fuel to burn up the remaining timber—and thus the most shameful waste and destruction were permitted to run riot. The officials at the head of the Crown Timber Department, in both Provinces, gave themselves no further trouble in the matter than that of collecting all the dues they could, their chief object appearing to be to show which party official, for the time being, could make the largest exhibit in his budget speech ; while timber, of as much value—if standing to-day in the forest—as would pay off our national debt, has been lost to the country.

Referring now to the extent and condition of our timber supply of commercial value, we find that a clean sweep has been made of our oak and elm, which I had often heard spoken of as inexhaustible. That of both kinds, now reaching and shipped at Quebec, is the product of Ohio and Michigan. Our remaining supply of pine may now be said to be confined to the valley of the Ottawa, and the St. Maurice and Muskoka districts, and the question of their condition to supply our home consumption and respond to the foreign demand is one that we should look squarely in the face. We should try to arrive, as near as possible, at its actual state, and not deceive ourselves, as I fear we are doing, with regard to the amount of our forest wealth. I have no doubt many of your readers will be surprised to learn from the statement which I here make, and that without fear of contradiction, that we have not as much pine timber, fit for market, in the Muskoka and the St. Maurice together, as is cut in a single year in Michigan alone—nor is there now remaining in the valley of the Ottawa as much merchantable pine as is got out in Michigan, Wisconsin and Minnesota in two seasons' cutting. Every stream on the Ontario side has been lumbered on to its source, and, with the exception of the limits recently sold, the same may be said as respects the Quebec side of the Ottawa, and the whole territory, with the exception above referred to, has been culled over to such an extent for clear logs and square timber, that its production of the latter, which averaged, a few years ago, from 80 to 100 feet to the stick, is now brought down to from 40 to 50 feet, and to secure a raft of the latter dimensions necessitates the culling over of a large extent of territory. The larger square timber shipped from Quebec to the British markets is now got out on the south shore of Lake Superior, in the upper peninsula of Michigan, which also supplies nearly all the board-wood logs for the same market.

Our Government gives us no information with regard to the amount of lumber manufactured in the country, or of the industries in which it is consumed. They think a statement of the amount yearly shipped out of the country is all that is worth while submitting to the people. But we may, in some measure, form an estimate of its requirements in the industries of our community, apart from that of house building and the like, by consulting the census returns of the United States, which furnish valuable and highly interesting statistics on the subject relating to their consumption. The census of 1870 reports 63,938 establishments manufacturing articles made entirely from wood, and employing 393,387 persons, and using material worth $309,921,401. There were besides 109,512 industries in which wood is an important part, for example, carriages, furniture, bridges, ships, &c., employing 700,915 persons, and using material worth $488,530,844 ; 250,000 cubic feet of the best pine were consumed in making 20,000,000,000 matches. At least 125,000 miles of fencing were required to enclose the railways of the country, which, says Professor Sargent, could not cost less, on an average, than $700 a mile, one-half of which would barely represent the wood employed, or $43,000,000, while they must take annually to the value of $10,000,000 to keep them in repair. It required the stripping of 36,000 acres, principally pine, to burn the bricks of that year. The value of pine packing boxes in 1850 was $1,000,000, while in 1870 they were valued at $8,200,000, and in 1874 at $12,000,000. The value of lumber converted into agricultural implements, in 1850, was $8,000,000, while their total value in 1870 had reached the enormous sum of $73,000,000, of which the forest must have furnished $20,000,000 ; 34,000,000 million sleepers, or thirty years' growth on 68,000 acres of the best natural woodland, or, if the sleeper is artificially raised, some 700,000 acres would be required, planted with trees solely adapted to the purpose, regularly cropped and scientifically managed to supply the railways already constructed. The census of 1872 shows 63,000 miles of telegraph, which required for their construction 1,600,000 trees, for poles ; while the annual repairs call for 250,000 more. The manufacture of shoe pegs consumes annually 100,000 cords of white birch, worth $1,000,000.

Now, when we add fifty per cent. to the foregoing exhibit of the partial uses of wood and its value at the present time, can we, with the utmost stretch of imagination, conceive the consequences to the community when the supplies for those industries alone, with their vast yearly increasing requirements, are cut off ? The terribleness of the calamity cannot be grasped by the mind, and will only be realized when a dearth of timber takes place—a calamity which, in a comparative degree, we must share with our neighbours across the line, and although it is certain to reach us in a few short years, not the slightest thought has yet been given to the subject by those having control of our affairs—whether of one political party or the other—and our lumbermen are now in the woods, with double force, slashing away as if timber was some noxious product which it was necessary to extirpate and rid the country of as rapidly as possible. The United States Government, awake, at last, to the necessity of endeavoring to made provision against the evil day of a timber famine, have established a department and schools of forestry, and set apart a large portion of their domain for tree planting—giving the settler a free deed of the lot he may select, on condition that he plants a certain number of acres of it in trees—and I find that over 2,000,000 acres have been taken up for settlement, on such terms, within the past year alone. But they have commenced too late. It takes a century to grow a standard pine saw log, and the expert they employed to estimate pine timber in Michigan, Wisconsin, and Minnesota, which contain all they have from here to the Rocky Mountains, gives them a supply but for one-tenth of that time, and, when we take into account that a million and a half of consumers will be yearly added to the population—their whole stock, at their own excessive estimate, will be swept away before their plantations afford timber for a hoe handle.

I have watched the course pursued by the lumberers of both the United States and Canada, and it has been reckless in the extreme. A Mr. Ward, of Michigan, is the only one among them who, it appears, is able to take a commonsense view of the question of supply and demand. While others have been slaughtering away their timber and laboring hard to get rid of it, as if of no value, he has been quietly picking up the most valuable lots, and has now secured in Michigan, Wisconsin and Minnesota some 2,500,000,000 of feet, from which he is sure of realizing, as it stands in the woods, $25,000,000 in five years, and double that sum within a decade, should he keep it so long. He is, besides, now turning his attention to the timber lands of Washington territory and the South, and certain it is he will run both Jay Gould and Vanderbilt, the railway kings, a close race in the millions, and that at a comparatively insignificant outlay, and with but little trouble or anxiety to himself.

The Western papers informs us that a 100 acre lot of pine was recently sold, in Western Ontario, for $22,000, or about as much as would purchase half a dozen farms with their buildings and improvements in the same neighbourhood, and near Guelph, where pine timber on a farm lot was looked upon, a few years ago, as an eyesore, $1,000 were recently refused for ten trees which would not occupy half an acre of ground. Our lumberers might surely learn a lesson from these facts. It is evident that the owner of timber land who sat quietly by without lifting

an axe has been making more money than if he had been at work in the most productive gold mine. His bonanza is secured, and he will be able to realize its full value in the near future, when, from the falling off of supplies from the West, our lumberers will be called on to furnish the consumption of both white pine and spruce of New York and the Eastern States, requiring them to double their present manufacturing capacity, and enabling them to fix both terms and price.

Our average exportation of forest products for the five fiscal years from 1871 to 1875, inclusive, amounted to $25,246,781 a year, and was largely in excess of our exportation of cereals for the same time. From 1875 to 1880 the exportation of wood goods largely fell off, which was one of the chief causes of the depression which overspread the country during that time. But when this source of revenue totally ceases, and we are necessitated to import wood for our own home consumption, and when, besides, our foreign markets are at the same time flooded with wheat and cattle from the Northwestern Provinces, reducing the price of our farm products to the lowest point, a condition in which the statesmen of both our political parties, by rushing the country into ruinous debt in the interests of the Northwest, have been laboring to place us—your readers will, I think, find but little trouble in figuring out for themselves the state of things that must then exist in both Ontario and Quebec, from such adverse circumstances.

THE PINE AND THE WALNUT.

A mile or so from the gray little town
Of Newcastle, perched like a gull by the sea,
On the Kittery side (where the banks shelve down
To the lovely river's golden brown),
There towered, long since, an old pine tree.

And across the stream, in a right bee-line,
Like a sentry guarding the ruined fort,
Was a large-limbed walnut, where the kine
Huddled together in shower and shine,
Nibbling the herbage, sparse and short.

Summer and winter those brave old trees
Watched the blue river that slipped between—
Leaned to the sunshine and drank the breeze,
Clothed like emperors, taking their ease,
Now in ermine, now in green.

Many a time, when I was a lad,
I drifted by with suspended oar,
The wind in the walnut seemed so sad!
But, ah! what a blustering voice it had
In the rugged pine on the other shore.

And often, in restless slumber tost,
I seemed to be drifting down the tide,
Hearing the strident wind as it crost—
To die away like a murmuring ghost
In the drooping boughs on the farther side.

Perhaps 'twas a boyish fantasy—
The dream of a dreamer, half afraid—
That the wind grew sad in the walnut tree,
But surged through the pine like the surging sea,
With a sound of distant cannonade!

Only a fantasy! Who can tell?
But I think 'twill haunt me to the end,
Seeing what curious things befell
The walnut tree and the pine as well—
For they went together friend and friend!

From a sullen cloud broke war at last,
And a grim sea-dog of the quarter deck
Took the gaunt old pine for a mizzen-mast;
In the flame of battle his spirit past,
And the mizzen dragged by the shattered wreck.

With the Union Jack across him laid,
They bore him back to the town by the sea,
The guns at the yard his requiem played,
And the admiral's coffin, it is said,
Was shaped of the planks of the walnut tree!

A GREAT ENTERPRISE.—The Hop Bitters Manufacturing Company is one of Rochester's greatest business enterprises. Their Hop Bitters have reached a sale beyond all precedent, having from their intrinsic value found their way into almost every household in the land.—*Graphic.*

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly to its wonderful effects.

SORE THROAT.—Apply Hagyard's Yellow Oil and take inwardly according to directions. Yellow Oil is the best remedy for rheumatism, Neuralgia, Bruises, Burns, Frost Bites and all lameness, inflammation and pain. No household should be without it.

Chips.

A PROMINENT lumberman in Burlington has had his coat-of-arms painted on the panels of his carriage, with the Latin motto, "Vidi."

THOMAS NESTER, of Saginaw, Mich., will put in 20,000 feet of logs this winter, from his Michigan lands, while he puts in his own time among the orange groves of Florida.

THE Manistee *Advocate* says that many competent judges engaged in lumbering think that the log crop this season will be much smaller than last year, notwithstanding the high price of lumber. Provisions and wages are so high that lumbering is very expensive, and many timber owners prefer to let their pine stand to cutting it at present.

THE *Timber Trades Journal* says the consumption outside of the United Kingdom, and even of Europe—South America, for instance—for housebuilding materials is an ever-increasing one, and, as fashion leads the way, each succeeding season the demand for suitable timber for constructing cities on the European model will give an impetus to trade that will materially assist the market when temporarily overburdened.

THE *Northwestern Lumberman* says that a boombshell, supposed to have been fired by Union troops during the war, was encountered in a large white oak log at a saw mill near Augusta, Ga., recently. A circular saw was going through a piece of timber when it struck a hard substance, which broke its teeth and stopped progress. Examination revealed, buried in the wood to the depth of eight inches, a large percussion bombshell, which, according to the calculations of those familiar with the growth of timber, has been there sixteen or seventeen years, and the tree has grown over it until there was but a slight scar left. It was found to be loaded.

MR. CARLWOOD has charge of a lumber camp on Pinery Point, Penetanguishene, for Mr. Dodge. He and his men were fortunate in discovering a hollow tree, with about a bushel and a half of the meats of nicely peeled beech-nuts, carefully stowed away, and which were, of course, unhesitatingly appropriated. As if robbing a squirrel's nest of the winter supply was not enough, they also discovered a "bee tree," in the hollow of which was deposited about three hundred pounds of the purest honey. None of the discoverers had any compunctions as to its being wild honey, but cheerfully accepted their share of the booty, regardless of the protests of the bees, and wended their way homeward bending under the weight of the saccharine treasure. That was a lucky find.—*Herald.*

THE Muskegon *Reporter* says that four saw mills are running yet. About a dozen were obliged to shut down on Saturday, 24th Dec., either from the want of logs or room to pile the lumber. Never before has the sawing of lumber continued so late in the season as this year—being all of a month later on the average than in times past. The loss of time by the two weeks' strike in the fall has more than been made up. Had the booming company continued rafting with a full force of men up to the present, fully 600,000,000 feet of logs would have been handled and delivered to the several mill booms this season; as it is, the amount does not exceed 550,000,000. Navigation is closed, and upwards of 70,000,000 feet of lumber are on the several mill docks here—fully two-thirds of which is sold.

INGENIOUS INVENTION.—Some shrewd Yankee has invented a key that will wind any watch; it is a neat attachment to a charm, and it is said to work like a charm. So does tha grand Key to Health—Burdock Blood Bitters, the greatest discovery of the age. It unlocks, all the secretions, and cleanses and invigorates the entire system. Sample bottles, 10 cents; large size, $1,00 of all medicine dealers.

WHERE IGNORANCE IS BLISS 'TIS FOLLY TO BE WISE.—Dr. Bliss if not a success at probing for bullets, was highly successful in despatching bulletins: but the grandest bulletin of success is that which heralds the wonderful cures performed by Burdock Blood Bitters, that matchless tonic and blood purifier which acts at once upon the Bowels, the Skin, the Liver and the Kidneys, while it invigorates and strengthens the whole system.

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Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

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Market Reports.

MONTREAL.

From our own Correspondent.

JAN. 9.—As usual, at this season of the year when there are so many holidays, trade has been very limited and confined to the immediate wants of builders and others. We fully expected that winter had fairly begun last Friday evening when we had a pretty heavy fall of snow, since then we have had a continued thaw and nearly all the snow has gone. Sleighs were out on Saturday, but carters have again to resort to wheeled vehicles. The late winter will probably effect prices this spring. Basswood will in all probability be dearer, but if we have plenty of snow by the 1st of February there will not be much change in the price of pine lumber. The quantity to be to be taken out this winter will be large, consisting not only of what was cut last winter, but also this year's production, The demand for shipment is reported to be good, and will most likely be in excess of last year. We generally look for some Amcricans here at this time to try and pick up a few car loads of lumber, but as yet they have not made an appeaeance. Prices remain the same as at the date of our last report. We quote :—

Pine, 1st quality, ₱ M	$32 00@40 00
Pine, 2nd " ₱ M	18 00@24 00
Pine, shipping culls, ₱ M	12 00@15 00
Pine, cull deals, ₱ M	8 00@12 00
Pine, mill culls, ₱ M	5 00@ 8 00
Spruce, ₱ M	8 00@10 00
Hemlock, ₱ M	8 00@10 00
Ash, run of long culls out, ₱ M	16 00@18 00
Bass, " " ₱ M	14 00@16 00
Oak, ₱ M	35 00@45 00
Birch, ₱ M	17 00@20 00
Hard Maple, ₱ M	18 00@25 00
Lath, ₱ M	1 25@ 1 35
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

CORDWOOD.

During the few cold days which we have had since our last report, the demand for firewood has been very brisk, but with the return of mild weather the demand has slackened off. On account of the want of snow they have not been able to draw much in the country as yet, which has lent a certain degree of firmness to the market, but the prospects are that there will be a good out turn of wood. We have no change to note in value, and quote prices at the railway depot, ex-cartage.

Long Maple	$6 50
Short "	6 00
Long Birch	6 00
Short "	5 50
Long Beech	5 50
Short "	5 00
Long Tamarack	4 50
Short "	4 00

ST. JOHN, N. B.

From Our Own Correspondent.

JAN. 6.—As is usual at this season of the year, the operations in lumber at this port are confined chiefly to the loading of the small number of ships which generally constitute our winter fleet. Regarding the operations in the woods, the want of snow is causing great inconvenience, except on the upper part of the Main river and tributaries, which will tend still further to reduce the log supply for next season.

DEALS.

The following table shows the quantity of deals, in superficial feet, shipped at this port for the various markets, during 1881, as compared with the previous year, from which it will be seen that the difference in the shipments of the two years was very trifling :—

	1881.	*1880.*
Australia	3,116,000 feet.	1,262,000 feet.
Barrow	1,460,000 "	2,691,000 "
Bristol Channel	28,182,000 "	28,685,000 "
Continent	23,458,000 "	32,869,000 "
Ireland	42,704,000 "	31,702,000 "
Liverpool	76,263,000 "	89,561,000 "
London	24,648,000 "	9,204,000 "
Scotland	7,987,000 "	2,096,000 "
Wales	1,172,000 "	1,120,000 "
Sundry ports	1,463,000 "	7,822,000 "
Total	210,453,000	207,012,000

The following gives the quantity of sawn lumber shipped to ports on this side of the Atlantic in 1881, but we have not the figures to hand for 1880 :—

United States	47,027,000 feet.
West Indies	3,409,000 "
South America	1,095,000 "
Total	51,531,000

FREIGHTS.

There has been scarcely anything doing in freights since last report. We have heard of one charter during the period for Penarth Roads for orders, at 62s. 6d. We quote rates nominally at 60s. to 62s. 6d. for principal English ports.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	4,875,000 Sup. feet.
" United States	807,006 "
" West Indies	291,000 "

The number of sugar box shooks shipped for Cuba is as follows :—

Sept. 1 to Dec. 21	34,856
Since	11,887
Total	46,745

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Atlantic, 412, Liverpool, Barrow or Fleetwood.
Emily Lowther, 762, Liverpool.
Etta Stewart, 787, Liverpool.
Cambusdoon, 1,200, Bona (Afr.) orders.
Carrick Castle, 878, Adelaide, orders.
Linden, 913, Liverpool or Bristol Channel.
Souvenir, 828, Liverpool.
Gettysburg, 1,015, Adelaide, for orders.
Templar, 778, Liverpool, Barrow or Bristol Channel.
Torryburn, 447, Jamaica.
Oscar 1st., 650, United Kingdom.
Melbourne, 622, Bristol Channel.
Memory, 409, discharging.

BOSTON.

The *Journal of Commerce* of Jan. 7, says that the demand has, of course, diminished somewhat as is usual at this season of the year. Still there is at present a very fair movement in some quarters. In fact, it is many years since trade has continued so good and kept up so far into the winter months. Dealers who have been years in the business report that "81" has been the most active within their remembrance. The great consumption has included everything worthy of the name of lumber. Prices are higher than a year ago, and many assert that the coming of another season will witness a still farther advance on all grades. Among the reasons may be mentioned the fact that the present season, owing to the light snow falls, has thus far been very unfavourable for logging operations. As last season's cut is known to have been pretty thoroughly worked up, it is feared that the supply will fall far below the demand. Reports from the south and west are that many of the mills are behind in forwarding their orders, owing to the scant arrivals and lack of facilities oor shipment. Most of the yard dealers are preparing for a very heavy trade, and are probably discussing a higher range of prices at the same time. Hard woods have alsc enjoyed a good consumtion and prices have remained firm. The following are carload quotations :—

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

CHICAGO.

JAN. 4.—Prices are held with firmness, dealers showing no disposition to relax their hold on values in the slightest degree. The broken condition of assortments, the general lowness of the supply of dry lumber, and the prospect that there will be a loud call for available stocks in the early spring, added to a similar condition existing at all the points of supply throughout the country, are sufficient causes why rates should be maintained, independent of any effort to sustain them by the holders of lumber.

Receipts and shipments of lumber and shingles from January 1 to December 31, 1881, inclusive :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
'81	1,854,029,000	794,581,000	1,920,056,000	886,972,000
'80	1,519,040,000	636,992,000	1,538,021,000	747,514,000
Inc.	334,989,000	157,589,000	382,035,000	139,458,000

The following was the stock on hand December 1 :—

	1881.	1880.	1879.
Lumber	620,781,223	569,879,283	481,129,208
Shingles	265,262,174	200,039,000	164,028,000
Lath	53,017,573	59,186,826	45,633,485
Pickets	2,346,682	2,706,303	2,303,826
Cedar posts	241,136	47,726	436,083

BUFFALO.

We quote cargo lots :—

Uppers	$40 00@45 00
Common	17 50@20 00
Culls	11 50@12 50

ALBANY.

JAN. 7.—Quotations at the yards are as follows :—

Pine, clear, ₱ M	$53 00@63 00
Pine, fourths	48 00@58 00
Pine, selects	43 00@53 00
Pine, good box	18 00@30 00
Pine, 10-in. plank, each	00 38@00 42
Pine, 10-in. plank, culls, each	00 20@00 22
Pine boards, 10-in	00 26@00 28
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	28 00@30 00
Pine, 1¼ in. siding, select	40 00@42 00
Pine, 1¼-in. siding, common	16 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1½-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ₱ M	35 00@40 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@70 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 25
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 30
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 00

OSWEGO, N.Y.

JAN. 7.—The following are the quotations :—

Three uppers	$42 00@45 00
Pickings	32 00@35 00
Fine, common	20 00@25 00
Common	14 00@18 00
Culls	13 00@15 00
Mill run lots	17 00@22 00
Sidings, selected, 1 inch	34 00@38 00
1¼ inch	34 00@38 00
Mill run, 1x10, 13 to 16 feet	17 00@21 00
selected	23 00@25 00
shippers	15 00@16 00
Strips, 1 and 1¼ inch mill run	15 00@22 00
Culls, selected	23 00@32 00
Culls	13 00@15 00
1x6 selected for clapboards	25 00@40 00
Shingles, XXX, 18 inch, pine	3 85@ 3 90
XX, " "	2 80@ 3 00
XXX, 18 inch, cedar	3 00@ 3 30
XX, " "	2 25@ 2 50
Lath	1 40@ 1 60

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$40 00@45 00
Common	17 50@20 00
Culls	11 50@12 50

GLASGOW.

The *Timber Trades Journal* of December 24th says that the delivery of wood goods from first hands during the week indicates a fair amount of activity in this department, and it is now evident that the restricted imports of the past few months will result in comparatively moderate stocks being shown on hand at the close of the year.

During the past two months the tonnage employed for the conveyance of wood goods arrived at Clyde ports from Quebec amounts to 7,300 tons, being nearly 20,000 tons tens less than the total for corresponding period last year. The imports in the earlier part of this year, however, were so considerable that the aggregate stock of Quebec goods now held will not show much difference when compared with that of a year ago.

There has been no import of pitch pine for over two months. The stock of this wood was low at the end of 1880, but was greatly augmented in the early months of this year, and even on to the fall, so that at present, although the consumption has been large, owing to the active operations of shipbuilders, the stock is still in excess of what it was a year ago.

With regard to Quebec deals the stock appears to be decidedly less than at corresponding date last year, which is to be accounted for by the extremely sparing import for several months past, and evidently points to firm rates at the opening of the new year.

During the past week there have been no auction sales held by timber brokers here or at Greenock.

The arrivals at Glasgow inciude a cargo of New Brunswick deals, consigned to Messrs. Brownlee & Co., City Saw-mills ; and at Greenock a cargo of Quebec timber, Messrs. Wright & Breakenridge, consignees.

It appears within these few days that a number of capitalists, both in and out of the shipping interest, have agreed to take a large amount of capital stock in a new fast line of Transatlantic steamers, to make the voyage in six days. Mr. Pearce, of Messrs. John Elder & Co. shipbuilders, Glasgow, has been engaged in promoting this undertaking.

LIVERPOOL.

The *Timber Trades Journal* of Dec. 24th, says that the business of the past week has been fair all round, and, considering that this may be taken as the last week in which any large amount of trade will be done this year, it must be satisfactory to all concerned. Prices remain firm, and with an upward tendency, which will probably develop itself in a more pronounced manner after the approaching holidays. The increased price demanded abroad for nearly all kinds of wood goods is not the only element that buyers for future delivery have to face, but there is the sudden increase in the premiums now demanded for insurance over what has been hitherto paid. The numerous disasters at sea which have recently taken place, wherein timber-laden vessels figured very conspicuously, have had the effect of raising the cost of insurance very materially, and this, which under the most favorable circumstances is an important item in the cost of a cargo of timber, becomes still more so when ten guineas per cent. is quoted for pitch pine cargoes, with other rates in proportion.

Taking the present position of business all round, it appears more than probable that after the turn of the year a further upward movement may again take place, the present comparative quietude being merely the lull experienced even in the best of years during the end of December.

MIRAMICHI SHIPMENTS.

J. B. Snowball's Miramichi Wood Trade Circular, for the year 1881, is as follows :—

CHATHAM, Miramichi, Dec. 15th, 1881.—The shipments from this port have been very steady during the season. There was at no time an excessive number of vessels in port, as was the case in many previous years.

Navigation opened early. Stream driving was good and all the logs procured during the winter came to market.

Preparations for this winter's operations are rather below the average, and it is anticipated that with the increased distance operators have to go for logs each year, next season's stock will be rather short, (at one time the estimate was at least twenty per cent. under average, but the favorable weather so far in the season makes the prospect more encouraging.)

The general business of the country has improved during the year, and wages are now higher than for many years ; this, with the increased price of provisions and all other materials which go largely into the expense of producing deals, will make the first cost for next season much higher, and a large advance on last season's prices is looked for.

The contract sales made from January to May of this year only covered first cost, the summer sales were most disastrous to shippers, but the late sales fully sustained Spring prices. The low rates of freight ranging during the season (from 56s. 3d. to 61s. 3d.) helped to bring about a result which otherwise would have been unfavorable.

The stocks held over this winter will aggregate in round and sawn woods 33 million superficial feet, against 16 millions last year and 70 millions in 1879.

The shipments for the past five years were as follows :—

1877—150 millions superficial feet.			
1878—106	"	"	"
1879—114	"	"	"
1880—155	"	"	"
1881—128	"	"	"

MR. G. PHILLIPS BEAVEN read a paper before the Statistical Society on the Industrial resources of Ireland. Referring to Irish timber, he said that if more attention were given to the planting of woods and forests this would stimulate shipbuilding at local ports, and encourage manipulation trades in woodwork (in which Ireland is deficient), barrel hoops, hay rakes, and even firewood having been imported.

BAMBOO FOR OREGON.

The American Consul-General at Shanghi has lately sent twenty boxes of bamboo cuttings for transplanting in Oregon. He writes to the State Department that in the Chinese Empire, south of the Yang-tze, about sixty varieties of bamboo are said to grow, although five or six furnish the principal materials used. At Foochow and Swatow, the large size grows 40 to 50 feet high and 6 or seven inches diameter; on the island of Formosa it is found even larger.

The bamboo serves at lesst five hundred different purposes in China. The roots are carved into images, lantern handles, and canes, the tapering culms are used for every conceivable place where poles and ribs can be put; the leaves can be worked into thatches, umbrellas, and screens; cut into splints, the wood is woven into baskets, plaited into awnings, and twisted into cables; the shavings stuff pillows; other parts supply chop-sticks for eating, beds for sleeping, brooms for sweepiug, pipes for smoking, fuel for cooking, skewers for the hair, paper for writing, rods for whipping, tables to eat on, buckets for water drawing, and the tender shoots are highly esteemed as a vegetable to be eaten. The consul-General urges the naturalizing of the bamboo in the Southern States and on the Pacific coast.

P. T. Barnum Falls Into Line.—Scanning our various exchanges, we notice especial distinction given in prominent New York dailies to Barnum, Bailey & Hutchinson's strong endorsement of St. Jacobs Oil as a pain-reliever. They too, have fallen into line, it would seem.—*Cincinnati (O.) Enquirer.*

J. L. Goodhue & Son

MANUFACTURERS OF

Leather Belting!

—AND—

Patent Lace Leather.

2L24 DANVILLE, P. Q.

ONTARIO
FLEMING & SON
ELECTRO & STEREOTYPE
26 COLBORNE ST.
TORONTO FOUNDRY

We have added to our plant all the latest improved machinery for Electro and Stereotyping, and the manufacture of Printers Furniture, facilities for executing work which no other establishment in the Dominion possesses, and not excelled by any on the continent. A large assortment of various cuts constantly on hand.

FLEMING & SON,
1L9 26 Colborne St., Toronto.

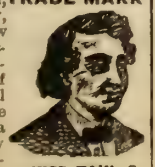
"NIL DESPERANDUM."

TRADE MARK

Important to Nervous Sufferers.

THE GREAT ENGLISH REMEDY for Nervous Debility and all Nervous Affections, including Spermatorrhea, Seminal Weakness, etc., result of Self-abuse, indiscretion, &c. is GRAY'S SPECIFIC MEDICINE. This is the only remedy which has ever been known to permanently cure Palpitation and other affections of the Heart, Consumption in its earlier stages, Rushing of blood to the head, Wind in the Stomach, Indigestion, Loss of Memory, Want of Energy, Bashfulness, Desire for Solitude, Low Spirits, Indisposition to labor on account of weakness, Universal Lassitude, Pain in the back, Dimness of Vision, Premature old age, etc. Full particulars in our pamphlet which we send securely sealed on receipt of a cent stamp. The Specific is now sold by all Druggists at $1 per package, or 6 for $5, or will be sent free by mail on Receipt of money by addressing THE GREY MEDICINE CO., 3 Mechanics' Block, Detroit, Mich.

BEFORE TAKING



TRADE MARK

AFTER TAKING

1L21

NOTICE TO CONTRACTORS.

RE-LETTING.

SEALED TENDERS addressed to the undersigned will be received at this Office until WEDNESDAY, the 18th instant, at noon, for the completion of the work remaining to be done at Greece's Point, towards the enlargement of the lower entrance of the Grenville canal.

Plans and specifications can be seen at the Office of the Superintending Engineer, Ottawa, or that of the Resident Engineer at Grenville.

Each tender must be accompanied by an *accepted* cheque for the sum of one thousand dollars ($1,000), made payable to the order of the Honorable the Minister of Railways and Canals, which will be forfeited if the party decline to enter into a contract when called upon to do so. If the tender be not accepted, the cheque will be returned.

The department does not bind itself to accept the lowest or any tender.

F. BRAUN,
Secretary.

Dept. of Railways and Canals,
Ottawa, 4th January, 1882. d7-2aw-1L2

LEATHER BELTING.

Chipman, Renaud & Co.

MANUFACTURERS OF

LEATHER BELTING,

FIRE ENGINE HOSE

LACE LEATHER, &c.

124 & 126 Queen St.

MONTREAL

MACK'S MAGNETIC MEDICINE.

Brain and

Nerve Food

Is a Sure, Prompt and Effectual Remedy for *Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Superma torrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs.* The experience of thousands proves it an Invaluable Remedy. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is *the cheapest and best.* ☞ Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at 50 cts, per box, or 12 for $5, or will be mailed free of postage, on receipt of the money, by addressing

MACK'S MAGNETIC MEDICINE CO.,
d138-w49-L23 Windsor, Ont., Canada.

Sold by all Druggists in Canada.

If you are a man of business, weakened by the strain of your duties avoid stimulants and use **Hop Bitters.**

If you are a man of letters toiling over midnight work, to restore brain nerve and waste, use **Hop B.**

If you are young and discretion or dissipated or single, old or poor health or languishness, rely on **Hop**

suffering from any indiscretion; if you are married or young, suffering from ing on a bed of sickness, **Bitters.**

Whoever you are, whenever you feel that your system needs cleansing, toning or stimulating without *intoxicating*, take **Hop Bitters.**

Thousands die annually from some form of **Kidney** disease that might have been prevented by a timely use of **HopBitters**

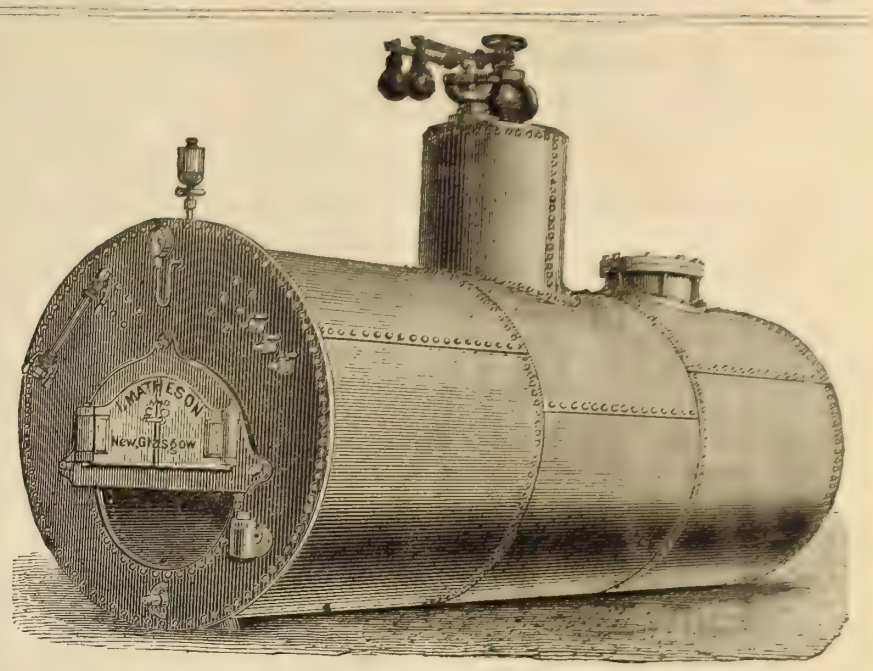
Have you dyspepsia, kidney or urinary complaint, disease of the *stomach, bowels, blood, liver or nerves?* You will be cured if you use **Hop Bitters**

D. I. C. is an absolute and irresistable cure for drunkeness, use of opium, tobacco, or narcotics.

If you are simply weak and low spirited, try it! **It may save your life. It has saved hundreds.**

Sold by druggists. Send for Circular.

HOP BITTERS M'F'G CO., Rochester, N. Y. & Toronto, Ont.



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I. MATHESON & CO. ENGINEERS & BOILER MAKERS, NEW GLASGOW, N.S.

1L17

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Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19

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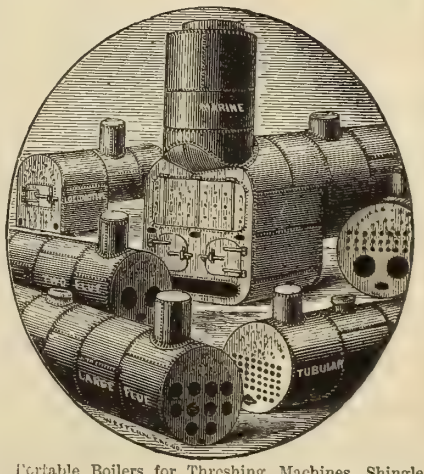
MANUFACTURERS OF ALL KINDS OF

STATIONARY,
MARINE, and
LOCOMOTIVE BOILERS,
And SHEET IRON WORK.



Portable Boilers for Threshing Machines, Shingle Mills, etc., furnished on short notice. All Boilers tested by cold water pressure to 150 lbs. to the square inch before leaving the shop,

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BOUGHT, SOLD, OR TAKEN IN EXCHANGE FOR NEW WORK.

☞ *Repairs Promptly Attended to.*

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UNION FOUNDRY

Union Street, - - - Carleton,
Warerooms, Water Street,

ST. JOHN, N. B.

Allan Brothers

(Late of Harris & Allen)

MANUFACTURERS OF ALL KINDS OF

Steam Engines

AND

MILL MACHINERY.

Ships Windlasses, Iron Capstans

and Ships CASTINGS of all kinds.

Ships Cambooses & Cabin Stoves

COOKING AND HEATING

STOVES,

Shop, Office and Parlor Stoves, and Franklins.

Agricultural Implements.

BRASS CASTINGS.

Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.

1L18

ROBERT W. LOWE,

AUCTIONEER AND COMMISSION MERCHANT

81 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

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ROBIN & SADLER

594, 596, 598, St. Joseph St.

MONTREAL

Manufacturers of

LEATHER BELTING

Fire-Engine HOSE,

Lace Leather,

Mill Supplies, &c.

1L13

Wrought Iron Shanty Cook Stoves

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use.** These Stoves are made of **Heavy Sheet Iron**, the top and lining of the fire-box being of **Heauy Cast Metal** and all the connecting parts of substantial **Wrought Iron Work.** The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 24 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business. Very truly yours, GEO. HILLIARD, M.P.

EVERY STOVE GUARANTEED

All the necessary TINWARE and CUTLERY for Shanties suppied at the Lowest Prices. 1L7

ADAM HALL, Peterborough.

D. McLACHLAN & SONS,

Manufacturers of all Descriptions of

STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

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ABRAMS & KERR

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Steam Engines, Mill Gearing, Rotary Mills, Shafting, Planers, Hangers, Pulleys, Variety Moulders.

SPECIAL MACHINERY MADE TO ORDER

Latest Improved Spool and Bobbin Machinery.
Every Variety of Heavy and Light Casting.

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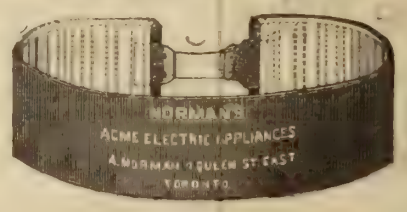
Foundry and Machine Shop on City Road,
ST. JOHN, NEW BRUNSWICK.

ESTABLISHED 1874.



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RELIEVE AND CURE

Spinal Complaints, General and NERVOUS DEBILITY, Rheumatism, Gout, Nervousness, Liver, Kidney, Lung, Throat and Chest Complaints, Neuralgia, Bronchitis, Incipient Paralysis, Asthma, Sciatica, Sprains, Consumption, Sleeplessness, Colds, Indigestion.

Ask for Norman's Electric Belts and you will be safe against imposition, for they will do their work well and are cheap at any price.

A. NORMAN, Esq., WATERVILLE, N. B.

Dear Sir,—Please send me a waist belt. Enclosed find price. Head band I got for my wife has almost cured her of neuralgia. Yours truly, C. L. TILLEY.

Numerous of such testimonials can be seen at my office, proving that they are doing a good work and worthy the attention of all sufferers. Circulars free. No charge for consultation.

A. NORMAN, 4, Queen Street East, Toronto.

N.B.—Trusses for Rupture, best in America, and Electric Batteries always on hand at reasonable prices. 1L12

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Nos. 115, 117, 119, 121, King St. East, Toronto.

We are the most Extensive CLOTHIERS in Canada.

We carry a STOCK of FIFTY THOUSAND DOLLARS to choose from.

We watch the interest of our Customers. Our stock is FULL of the very best goods in Scotch, English and Canadian Tweeds.

We BUY and SELL for Cash, therefore it enables us to do business on very SMALL PROFITS.

NOTE THE PRICES.

We give a Good Tweed Suit for.....$6 00
We give a Good Tweed Pants for..... 1 50
We give a Good Overalls for 0 35

LUMBERMEN!

When you visit Toronto, come direct to OAK HALL, and fit yourselves out with a Good Suit. Remember the address:—OAK HALL, the Great One Price Clothing House, Toronto, opposite St. Jame's Cathedral. 1L8

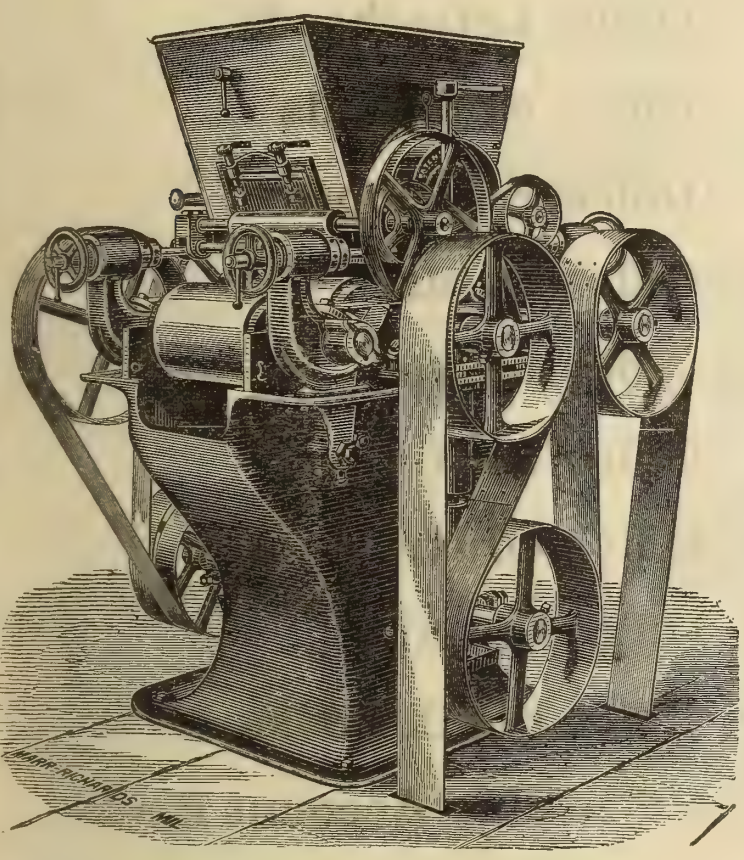
Flour Making by the New Process

GRAY'S PATENT

NOISELESS ROLLER MILL

A Model of Perfection!
Every Mill a Success!

CORRUGATIONS of all Descriptions. Smooth Iron or Porcelain ROLLS.



☞These Roller Mills are used by all the Representative Millers of the United States.

The Machine is Perfect in all its adjustments, and RUNS WITHOUT NOISE.

It is doing Better Work than any other Machine in use.

Automatic Lubrication of Principal Bearings.

Driven entirely by BELTS.

Differential Speed always insured.

WEYMAN'S NEW IMPROVED PATENT

Porcelain Rolls

The BEST ROLL FOR MIDDLINGS in the world. Over 6000 in use in this country and Europe. Send for particulars.

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SOLE LICENSEES FOR DOMINION.

Manufacturers of Improved Hoisting Machinery, MINING and CONTRACTORS' PLANT. Importers of BEST STEEL WIRE ROPE. Mention this Paper. 1L19

Northey's Steam Pump Works

BOILER FEED PUMPS,	MINING PUMPS,
AIR AND CIRCULATING PUMPS,	PUMPS SPECIALLY ADAPTED for
STEAM FIRE PUMPS, and	OIL PIPE LINES,
WRECKING PUMPS.	And CITY WATER WORKS.

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SEND FOR CIRCULAR.

MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.

HOYT'S CELEBRATED LEATHER BELTING.

COTTON BELTING, for Flour Mills. &c., Superior Quality.

DISSTON'S CELEBRATED MILL SAWS.

Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 1L20

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ESTABLISHED 1820.

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14 to 34 King and Queen Streets, MONTREAL,

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Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

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"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

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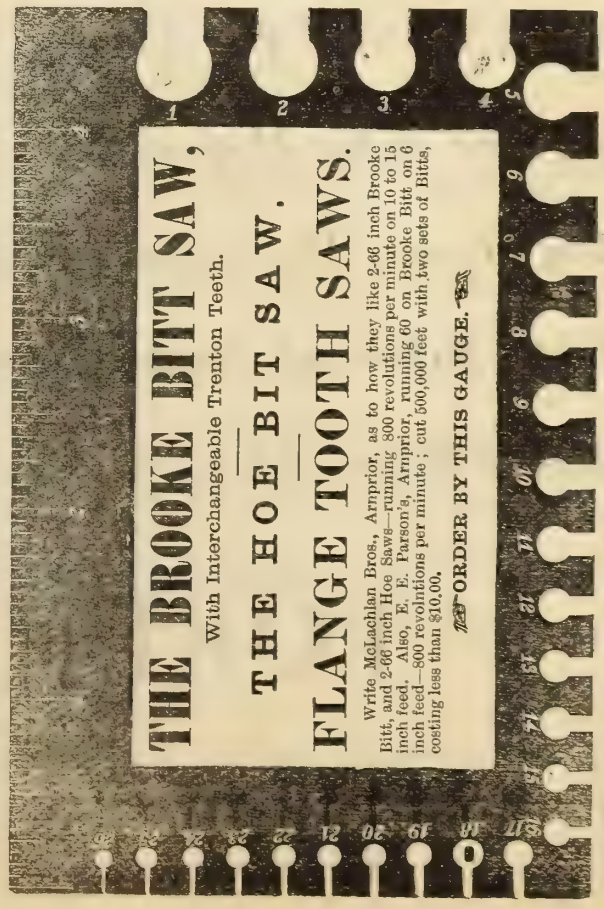
HEADQUARTERS FOR INSERTED TOOTH SAWS!


THE BROOKE BIT SAW,
With Interchangeable Trenton Teeth.
THE HOE BIT SAW.
FLANGE TOOTH SAWS.
Write McLachlan Bros., Arnprior, as to how they like 2-66 inch Brooke Bit, and 2-66 inch Hoe Saws—running 800 revolutions per minute on 10 to 15 inch feed. Also, E. E. Parson's, Arnprior, running 60 on Brooke Bit on 6 inch feed—800 revolutions per minute; cut 500,000 feet with two sets of Bits, costing less than $10,00.
☞ORDER BY THIS GAUGE.☜

EWART'S PATENT DRIVE CHAIN

FOR SAWDUST CARRIERS, LIVE ROLLS, TRIMMERS and REFUSE CARRIERS.

BROWN'S PATENT SPALT MACHINE

Cuts three perfect Shingles out of inch board. Cuts Shingles out of slabs and all manner of refuse. Will soon pay for itself around any large Mill.

AUTOMATIC GANG TRIMMERS, SIX SAW EDGERS, and the most improved Saw Mill Machinery. PORTABLE SAW MILLS OUR SPECIALTY.

1L10

Address, WATEROUS ENGINE WORKS CO., Brantford, Canada.

LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City prices.

Shanty Settlements
Shanty Orders
Shanty Receipts
Shanty Time Books
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Shanty Way Bills
Drive Books

Office Letterheads
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And everything necessary to a complete office outfit.

All Printing done in the Highest Style of the Art, and at Lowest Living Prices.

Book-Binding of every Description got up in a very Neat and Superior manner.

Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

TOKER & CO.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President.

JAMES T. BARNARD, Hamilton, Secretary-Treasurer.

SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERTSON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ., PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

1L11

EMERY WHEELS FOR SAW GUMMING!

Solid Emery Wheels are now almost in universal use for the purpose of gulleting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eigths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ¾ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ¾ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } Holes, ¾, ⅞ and 1 inch.

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 2½x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2." It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1t8

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CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

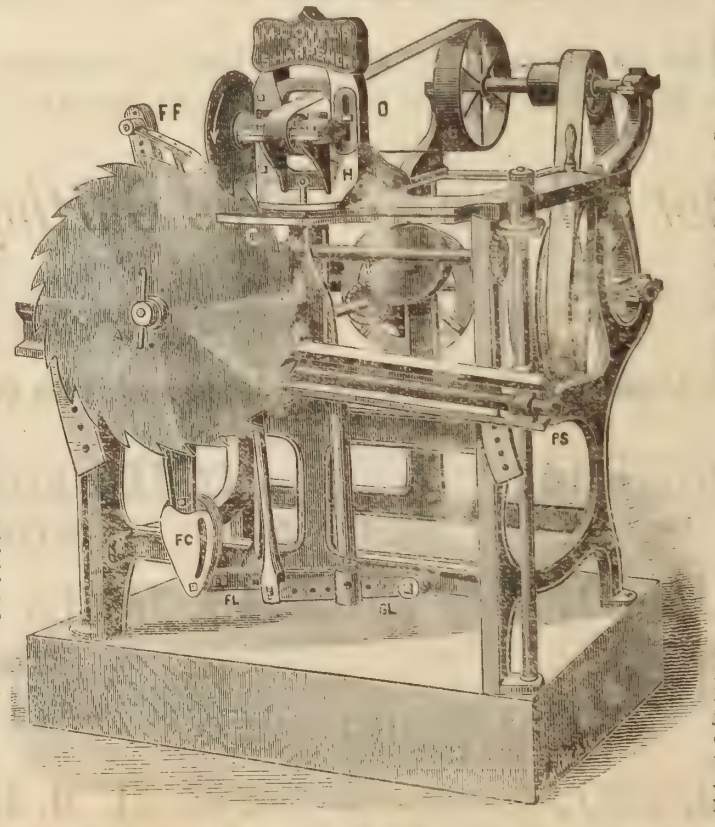
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



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I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

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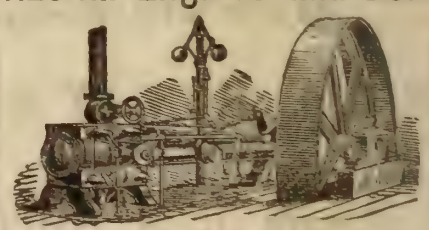

Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1tf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

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SUBSCRIPTION $2.00 PER ANNUM

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BARKING UP THE WRONG TREE.

Although the revenue derived from woods and forests stands second in amount among Ontario's receipts, it is really surprising to note the manner in which so important a subject is treated, when referred to, by both parties in the Legislature. For instance, in the speech delivered from the throne the other day, on the opening of the present session of the Ontario Legislature, we are told that the recent sale of timber limits was effected "in the interest of settlement and revenue," which means, we suppose, that now that the right to cut the timber on the lands in question has been sold to private individuals, the Ontario Government proposes to minimize its value both to the purchaser and to the Province by throwing it open to indiscriminate settlement under the "Free Grant Act," and the only objection which the leader of the Opposition apparently has both to what has been done, and what is proposed to be done, is that the Legislature was not consulted as to the expediency of the sale before it took place.

Now, all this, to our mind, is very much like barking up the wrong tree. In the first place, all past experience proves that those lands, which are chiefly valuable for their timber, as the prices realized for these limits amply prove them to be, are not the best for *bona fide* settlement, while their attempted settlement unavoidably causes the destruction of much valuable timber by fire, and thereby a loss of revenue to the Province, and a loss of employment both directly and indirectly to the people, of infinitely more benefit than any settlers which will ever make a permanent home on these lands—especially at the present time, when the North-West offers so many inducements to the intending agriculturist.

We had hoped that in view of past experience, and in view of the necessity which exists for making the very most of our timber resources, the present Ontario Government would have been prepared to try the experiment of setting apart the district covered by the recent sale for timber production only, and adopted special measures for protecting the timber growing thereon from destruction by fire. The importance of the revenue yet to be derived therefrom by the Province, and the importance of making the very most of the forests which we are so fortunate as to inherit from the past, should forbid any carping over any reasonable expenditure for such a purpose, or any high-falutin about the rights of the would-be-settler to settle wheresoever he pleases. So far as settlement is concerned, the question simply is. Will the Province, as a whole, derive most benefit from protecting the timber, or from the settlers which will go on these lands? Whenever the lands are chiefly valuable for the timber upon them, it cannot be questioned that the timber is worth both directly and indirectly much more to the province than any settlement which is likely to take place on such lands under existing circumstances, while we do not think it would be difficult to prove that the timber thus protected would add more to the population of the Province in the course of its manufacture than is likely to follow from opening the land itself to settlement under the Free Grant Act.

PROTECTION FROM FIRE.

The Ontario Legislature having now met, it should be its urgent duty to pass some measure whereby the provisions of the Hon. T. B. Pardee's Fire Act could be practically enforced. As it is now, the Act is a dead letter. Its 14th clause provides that it shall be the special duty of every Crown Land Agent and Bushranger to enforce this Act, and to prosecute every person guilty of a breach of its provisions and requirements; but as they have no instructions or authority from their Department to that effect, they can do nothing, and as for lumbermen taking up and prosecuting parties guilty of breaches of the fire act, it is simply absurd, as they would do it at the risk of having more of their limits purposely burned another year in retaliation.

It would appear that the greatest fires have occurred since the passing of the Act, and this may be due to the fact that no person is afraid of being prosecuted under its provisions.

Most people are under the impression that it is only the license holder who suffers from fires set out in the limits. They forget that every timber forest destroyed by fire represents so much *revenue* lost to the Province, let alone the actual loss to the license holder, in his limit and extensive river improvements.

There is another greater loss to be considered, and that is the loss to the country of the money which would be paid out in manufacturing and bringing this timber to market had it remained green.

During the past summer fires overran large parts of the Parry Sound and Muskoka districts, and the country lying between the Georgian Bay and the Ottawa River, and according to an estimate made in the *Globe*, of Nov. 10th, destroyed $10,000,000 worth of pine in Ontario. This does not nearly cover all the loss, as there were many fires of licensed lands, of which the public knew nothing, the holders of the limits burned keeping the knowledge of it to themselves, not wishing the value of their properties to be depreciated.

If these annual fires continue, they will in a few years make a large hole in the revenue of Ontario.

There were three quarters of a million dollars in bonus alone obtained from the last sale of timber berths, and the duty on the timber growing on them will represent to Ontario, if not burnt, upwards of five millions of dollars, and perhaps more. The parties who have paid such large sums for timber berths have a right to look to the Government for protection against fires, and that the existing Fire Act be properly enforced.

As these berths are all likely to be operated on within a few years, (buyers being anxious to get returns), and as they are now owned by so many different parties, the risk of fires is very much increased. Before the sale these berths were in their virgin state, and not much exposed to fires, being held by the Government, but as soon as operations commence on them they will stand a poor chance.

There should be a distinction made by the Crown Lands Department between pine lands and hardwood lands fit for settlement. It is well known that in the back districts of Ontario and the Ottawa Valley, the pine lands are generally not fit for settlement, and that where settlement has been made on them the settlers, instead of prospering, yearly grew poorer and poorer, till in many places they were actually driven from their holdings by starvation, as witness the Opeongo Road, the Bonnechere and Mississippi counties, which are now nearly deserts, nothing but dry pines to be seen as far the eye can reach, while on the other hand those who settled on the hardwood lands have done well, and made themselves comfortable.

Now that the country is mostly all surveyed and the quality of the lands known to the Government, through its surveyors and bushrangers, it surely would be easy to make a distinction between lands for settlement and those for lumbering. A large portion of the Opeongo and Bonnechere country was not surveyed until after its settlement, and the Government had not therefore the knowledge they now have about their unoccupied lands.

It surely would not be too much to expect that the source of such a large revenue to this Province as its timber forests should be better guarded against loss than it now is.

If the present staff of woodrangers were increased, and kept in the woods during the months of May, June, July and August, being good, practical bush and canoe men, and well posted in the back country, they could prevent many bush fires being set out, and generally enforce the provisions of the Fire Act, if authority were given them to do so. If one fifth of the revenue, which would have been derived from the timber destroyed by fires last year alone, had been expended in watching the Crown domain, it would have paid the salary of a large staff of men for several years, and it is more than probable that very little damage from fires would have occurred.

If persons holding and working limits, and their agents and foremen, were all held responsible for the damage done by fires set out by them or their men, and also the heads of surveying or hunting and fishing parties, they would be more careful than they now are. It is not so hard to trace the makers of fires in the woods as it to trace incendiaries in cities, as every practical bushmen knows that almost all fires in the woods can be traced to their starting point, and to the parties who set them out.—*C*

WOODEN BREAD.

It has lately been discovered that whisky can be made from saw dust, and while we were yet calculating on the good times when one could "set e'm up" without stint or limit, and speculating what is likely to be the increase in the whisky product, if science keeps on in this fashion, along comes another scientist, and informs us that we may also have bread made from wood. We clip the following from a recent edition of *Good Health*:—"It is well known to the botanist that many plants besides those commonly used for food, contain nutritive elements. Nearly all plants contain starch. The barks of several aspens and pine trees contain so much of this substance that it can be extracted from them as from potatoes by trituration with water. It exists also in the roots and other parts of perennial plants to such an extent as to have been employed in the preparation of bread in families. In illustration of this we quote the following directions, given by Prof. Autenrieth, for preparing a palatable and nutritious bread from the beech and other woods destitute of turpentine: 'Everything soluble in water is first removed by frequent maceration and boiling; the wood is then to be reduced to a minute state of division, not merely into fine fibres, but actual powder; and after being repeatedly subjected to heat in an oven, is ground in the usual manner of corn.' Wood thus prepared, according to the author, acquires the smell and taste of corn flour. It is, however, never quite white. It agrees with corn flour in not fermenting without the addition of leaven, and in this case some leaven of corn flour is found to answer best. With this it makes a perfectly uniform and spongy bread; and when it is thoroughly baked and has a nice crust, it has a much better taste of bread than what in time of scarcity is prepared from the bran and husks of corn. Wood flour boiled in water, forms a thick, tough jelly, which is very nutritious."—*Northwestern Lu*

Adirondack Preserves.

Mr. Wm. Pickhardt, of New York, has purchased a tract of 6,000 acres of land, on Schroon lake, called the Pharaoh property, which forms the eastern portion of the Adirondack [illegible]. This large area he proposes to preserve from the profanation of plow or woodman's axe, and to devote it entirely to natural wildness, and to be the home of untamed beast and bird. The price paid for the tract was $10,000. The owner will appoint keepers, hunters will be watched, and, if possible, no poaching will be allowed, while violators of the game law will be prosecuted. A section of aristocratic old England let down in the woods of northern New York.

McLAREN vs. CANADA CENTRAL R. R.

In the case of McLaren vs. The Canada Central Railway, for damages for lumber burnt by sparks from a locomotive, after a long trial the jury returned a verdict for the plaintiff, assessing the damages at $100,000. Mr. Justice Osler then directed judgment for the plaintiff for $100,000, but the entry was not to be made until the fifth day after the next Hilary sitting. The following were the questions submitted to he jury by the judge, and the answers made :—

Q. How did the fire occur—from sparks or cinders cast out from the locomotive, or from some other cause?

A. We think the fire occurred from sparks cast by the locomotive.

Q. If you find that the fire was caused by fire cast out by the locomotive, did it come from the smoke-stack or the ash-pan?

A. From the smoke-stack.

Q. If you find that it came from the smoke-stack, was it from any imperfection in the construction of the stack, or from the way in which it was managed by those in charge of the train?

A. Imperfection in the stack.

Q. If you find that it was from any imperfection in the construction, state what the imperfection was. Was there anything too large, or was the opened or unfastened bonnet improper, or was the cone too close to the netting?

A. Cone too close to the netting.

Q. Would there be more substantial danger of fire from a bonnet provided with a mesh of the size used by the defendants than from that used by the Northern Railway, which appears to be the smallest in use?

A. Yes.

Q. Were the defendants, in your opinion, guilty of negligence in using such a mesh?

A. No.

Q. Was the plaintiff guilty of contributory negligence in piling his lumber so near the track, or by allowing sawdust to remain on it, or by not having sufficient appliances to extinguish fire? If the plaintiff was guilty of negligence, could the defendants, by the use of ordinary care and diligence, have prevented the injury?

A. Not as to piling the lumber, or as to the sawdust, but somewhat as to appliances. We think the defendants could have prevented the fire.

Q. What was the actual value of the lumber destroyed?

A. $100,000, including ties and rails.

Q. Do you allow anything for interest?

A. No.

Another question was then raised by Mr. McCarthy, and at the request of His Lordship the jury once more retired, this time to consider whether the bonnet-rim of the smoke stack fitted to the bed. They occupied fifteen or twenty minutes in discussing this question, and at a quarter to eleven o'clock returned for the third and last time to say that the bonnet-rim did not fit so completely as it should have done.

FOREST CULTIVATION.

The necessity for forest culture is forcing itself on the attention of the people. Many of the leading journals have had articles on the subject. Over in the States the same anxiety on the subject prevails, and a convention will be held in Cincinnati to carefully consider the matter. The general Government, the States, scientific and agricultural societies, and other associations interested in saving the timber from wanton destruction, will send delegates to Cincinnati to discuss the whole subject of forestry. This is a subject that we in Canada should also be seriously considering, as it is one of great and vital importance. Our forests are now thinned out at a rapid rate, aud in the most prodigal way. Many thousand acres of woodland are annually burned over, mostly by accidental fires, but often intentionally, to make clearings. Railroad ties consume every year a vast amount of growing timber. An enormous quantity, too, and some of it of the most valuable species, is needlessly used up for firewood. In all parts of the country the waste goes on. This waste must be stopped, or the world will witness a timber famine before the middle of the next century. It is true that many millions of trees are being planted on the American prairies, but not nearly enough to replace the destructive consumption of timber which is now taking place. In this country the Government should take steps to preserve existing forests, and to plant trees wherever available. The rural municipalities might be compelled by law to plant their roads with trees, and thus three per cent of the whole land of the country could be made to bear timber. We repeat,—this subject must be carefully considered by the Government.—*Bobcaygeon Independent.*

LAKE OF THE WOODS TIMBER DISTRICT.

Until quite lately the vast timber resources of this portion of Canada were but little known. Parties passing through islands on the Lake of the Woods could form a very limited idea of pine actually within reach. The timber limits surveyed in 1873 for Fuller & Co. were, we may say, unexplored, and in fact the Government knew very little about what they were leasing. This limit included all the islands north of the steamboat channel (islands, the number of which is not even yet definitely known), besides the several limits on the mainland. Since the Keewatin Lumbering and Manufacturing Co. have been running their mills at Keewatin, these islands have been more carefully prospected and explored, and the result is the discovery of a much larger district of timber than was thought to exist in the country. The limits belonging to Mr. W. J. Macaulay, recently transferred to Dick & Banning, are scattered over a large tract of country, and embrace a very considerable area of land. One pinery especially is worthy of notice. On the Rainy River, near the Sault rapids, the timber is all white pine, and will compare favorably with the product of Lower Canada. Proceeding to Fort Francis, we find Sutherland & Bros.' saw mill. This firm has almost inexhaustible limits on Rainy Lake, the Manitou River, and elsewhere, and employ this winter a large force in the woods. The development made in this industry during the past summer lead us to believe that no inconsiderable portion of our future wealth will be derived from the pine districts of the Lake of the Woods and Rainy River.—*Rat Portage Progress.*

THE AUSTRALIAN TRADE.

Messrs. Gemmell, Tuckett & Co.'s timber report, dated Melbourne, Nov. 22nd, states there has been a brisk demand for all kinds of timber for building purposes, and prices realized for some lines show an advance on late rates.

American lumber continues in short supply, and prices are firm at present rates. Sales ex *Oneida* and *Claud Hamilton*—Michigan clear, 2 and 3 in., brought £18 ; 4 and 5 in., £18 10s. ; w. p. shelving, 12 in. and wider, £14 2s. 6d. to £14 5s.; w. p. t. and g. ceiling, £10 17s. 6d. to £10 12s. 6d. per M. super.

Messrs. C. S. Ross report that during the past month there has been an active demand for building materials, and prices have slightly advanced. Sales by auction have been well attended, and the bidding has been more spirited than usual for nearly all descriptions of timber. There is evidence of a substantial character that the present activity in the building trade will continue as the exports from the colony this season of wool will be far heavier than usual. The arrivals for the month have been the *Ethiopian, Northern Monarch, Cambrian Prince, Loch Sloy, Hoghton Tower, Chrysomene, Ganges,* and *Antiope,* from Great Britain, with flooring, red deals, &c.; *Cheviot, Konoowarra,* and *Borrabool,* from Sydney, with cedar; *Nemesis,* from Sydney, with redwood and white pine; *Amoor* from Drammen, and *Maury,* from Fredrikstadt, with flooring and deals; *Drumlanrig,* from Gefle, with red deals; *Fleetwing,* from Burrard Inlet, with Oregon laths and pickets; *Grace Deering,* from Boston, with spruce deals, clear pine, shelving and laths.

PREJUDICE KILLS.—"Eleven years our daughter suffered on a bed of misery under the care of several of the best (and some of the worst) physicians, who gave her disease various names but no relief, and now she is restored to us in good health by as simple a remedy as Hop Bitters, that we had poohed at for two years, before using it. We earnestly hope and pray that no one else will let their sick suffer as we did, on account of prejudice against so good a medicine as Hop Bitters,"—The Patients.—*Telegraph.*

MICHIGAN TIMBER SUPPLY.

A Brighton, Mich., despatch says some interesting figures relating to the timber interests of Michigan are furnished by the *Forestry Bulletin* just issued from the National Census office at Washington. The timber supply of this State, that is the estimated amount of merchantable timber standing on May 31, 1881, was as follows :—Lower Peninsula—Of white pine the basins of streams flowing into the Saginaw Bay have 7,000,000,000 feet, board measure ; the basins of streams flowing into Lake Huron have 8,000,000,000 feet ; the basins of streams flowing into Lake Michigan have 14,000,000,000, making a total of 29,000,000,000 feet. The pine on the Lower Peninsula is distributed over about 6,500,000 acres. Of hardwood there is an estimated amount of 575,500,000 cords distributed over some 20,000,000 acres. Of this about 20 per cent. is suitable for lumber and cooperage stock. Some 7,000,000,000 feet of hemlock lumber and 7,000,000 cords of bark still remain, together with about 5,000,000 cords of white and yellow cedar. Upper Peninsula—Of white pine, Marquette and Menominee counties have some 1,600,000,000 feet ; Ontonagon, Houghton, Keweenaw and Bargo counties have about 2,400,000,000 ; Schoolcraft, Chippewa, Mackinaw and Delta counties have 2,000,000,000 feet, making a total of 6,000,000,000 feet. Of hardwood there is an estimated amount of 124,500,000 cords distributed over 10,000,000 acres ; also about 62,500,000 cords of tamarac and white and yellow cedar.

After Pine, Paper.

In a paper on the white pine of Michighan, Mr. W. H. Ballou shows that the quantity of pine in that state has decreased from 135,000,000,000 feet on 20,000,000 acres of land to 35,000,000,000 feet on 10,571,000 acres. Some 5,000,000,000 feet are now annually taken away, so that in seven years the supply will be exhausted. It almost seems a despairing task to hope ever to raise forests for another such enormous production, and science will have to devise other materials as a substitute for wood. Lumber is already made in boards an inch thick from wheat straw, and can be colored so as to resemble any real lumber. The inventor manufactures two thousand square feet of a more durable and cheaper material than lumber from a ton of straw.—*Popular Science Monthly.*

Albany, N.Y., Stocks.

The following comparative statement of lumber on hand at Albany, N. Y., on the 1st of January in each year for the past ten years, is taken from a statement just issued by Sumner & Hascy, lumber dealers, at that city :—

	Pine.	*Hardwood.*	*Spruce & Hemlock.*
1873	79,242,000	4,972,000	26,395,000
1874	90,996,000	5,594,000	16,992,000
1875	67,704,000	5,355,000	16,875,000
1876	67,800,000	6,652,000	8,336,000
1877	75,589,000	5,495,000	12,321,000
1878	69,547,000	3,645,000	22,432,000
1879	68,766,000	2,231,000	30,614,000
1880	76,463,000	2,097,000	5,415,000
1881	114,977,000	2,689,000	2,317,000
1882	101,587,000	3,205,000	6,256,000

LIVERPOOL.

The *Timber Trades Journal,* of Jan 7th, says :—The business of the past week has naturally been upon a very limited scale, and the usual course of trade has yet hardly had time to settle down into its normal condition ; this position is, however, a question of only a few days, and everyone appears to look forward to a resumption of business as good, if not considerably better, than has been the case during the past three or four months.

The circulars issued from nearly every branch of business show that the trade of the country has been fair, and positively good during the latter portion of the year, and in all possibility the timber trade, always the slowest to feel the influence of the ups and downs of trade, will enter the year with good prospects of obtaining higher prices than have recently been obtained, although these are higher than we have been accustomed to.

The imports continue moderate here, and as the import season for North American and Baltic goods is now practically closed, shippers are not willing to part with their goods excepting at a price which will see them recouped for their outlay, and therefore several auction sales are announced to take place during the next ten days, which will include most of the goods now on the way from New Brunswick and other deal ports.

Messrs. Farnworth & Jardine state that the arrivals from British North America during the past month (December) have been 17 vessels, against 17 vessels in the corresponding month last year, and the business of the month has been of a satisfactory character, prices having advanced, especially in Canadian woods. The imports for the season is now about closed, and stocks are generally very light. Canadian Woods—Of square yellow pine the stock is very small, and the late sales show a considerable advance in prices ; for waney board also there has been a fair demand, and prices are improving. For red pine there has been more enquiry and the stock now is light. Of oak the consumption has been large, and prices are firmer ; there is an increasing demand for planks cut to waggon sizes, the prices of these being so much lower than oak in the log, but they can no longer be had at the extremely low prices lately ruling. For elm and ash the demand has been limited, but prices are fairly maintained. Pine deals—There has been a good demand, and the late sales have been at improving prices, but they are still disproportionately low as compared with pine timber. Staves—Pipe fully maintain their value ; but puncheon are rather easier. New Brunswick and Nova Scotia Pine and Spruce Deals—There has been a moderate import and a good consumption, and the stock is only about half as much as it was at the end of last year. The late sales of spruce deals shew a slight advance in prices, and now that the season's import is practically over we may soon expect to see a further improvement in value. For pine deals there has not been much enquiry, but stock are now getting very low and the next sales will probably be at higher prices.

SUBSCRIBE for the CANADA LUMBERMAN.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Dec. 31st, 1880 and 1881, and also the Consumption for the month of December, 1880 and 1881 :—

	Stock, Dec. 31st. 1881.	*Stock, Dec. 31st. 1880.*	*Consumption for the month of Dec. 1881.*	*Consumption for the month of Dec. 1880.*
Quebec Square Pine	348,000 ft.	869,000 ft.	190,000 ft.	223,000 ft.
" Waney Board	353,000 "	303,000 "		
St. John Pine	32,000 "	21,000 "	12,000 "	2,000 "
Other Ports Pine	37,000 "	43,000 "	8,000 "	8,000 "
Pitch Pine, hewn	510,000 "	394,000 "	120,000 "	141,000 "
" sawn	412,000 "	200,000 "	72,000 "	43,000 "
" planks	59,000 "	37,000 "	27,000 "	8,000 "
Red Pine	26,000 "	63,000 "	19,000 "	14,000 "
Dantzig, &c., Fir	50,000 "	219,000 "	6,000 "	32,000 "
Sweden and Norway Fir	16,000 "	4,000 "	3,000 "	—
Oak, Canadian	347,000 "	524,000 "	119,000 "	78,000 "
" Planks	92,000 "	—	57,000 "	—
" Baltic	64,000 "	37,000 "	4,000 "	3,000 "
Elm	50,000 "	43,000 "	12,000 "	34,000 "
Ash	18,000 "	13,000 "	1,000 "	7,000 "
Birch	127,000 "	275,000 "	27,000 "	62,000 "
Greenheart	30,000 "	38,000 "	—	25,000 "
East India Teak	14,000 "	77,000 "	6,000 "	22,000 "
Quebec Pine Deals	7,882 stds.	11,095 stds.	2,773 stds.	1,755 stds.
" Spruce "				
N. B. & N. S. Spruce Deals	16,935 "	30,641 "	6,379 "	7,736 "
" Pine "	718 "	1,856 "		
Baltic Deals	3,113 "	6,943 "	473 "	615 "
" Boards	198 "	790 "	48 "	37 "
" Flooring Boards	1,693 "	2,830 "	489 "	482 "

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First Prize, Provincial Exhibition..... Hamilton, 1876
First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition.....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

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81 Colborne Street, Toronto

JAMES EDDY, of Flint, Mich., has established a wheel-barrow factory, which promises to consume 500,000 feet of hardwood a year.

BY next summer square timber can be shipped from the forks of the Clyde River to Kingston by rail. A track, six and a half miles long, will be built.

J. T. ALLEN, a dealer in Boston, recently had one of the finest ash burls ever seen in that market. It cut over 7,000 feet of veneers, the largest sheets being five feet long by two and a half feet wide.

W. L. CRIMMELL scaled one of the largest pine trees ever cut in Saginaw county, recently, in his camp on Klacking creek. The tree cut 16 feet logs. The butt log measured 800 feet, and the top or smallest log 600 feet, making a total of 8,000 feet of lumber in the tree.

THE Seattle, W. T., *Chronicle* is stirring up San Francisco capitalists with a view to the erection of a wood pulp factory on Puget Sound. Cottonwood is being shipped from Skagit to San Francisco for the purpose of testing it for pulp.

THAT plebeian of the forests—hemlock—is gradually coming to the front for recognition. In New Brunswick luumbermen are becoming fully awake to its value. An operator at St. Stephens recently stated that last season he received $5 for stumpage on 2,000,000 feet, board measure, of hemlock logs.

THOMAS C. WATSON'S circular, just issued from Pensacola, Florida, says there is a pressing demand for vessels for hewn timber, sawn timber and deals or board cargoes, to ports in the United Kingdom, continent between Bordeaux and Hamburg, and Mediterranean, and full and satisfactory rates can be obtained for almost any size of vessel.

IT is the purpose of the Sturgeon Bay Lumber Company to purchase another tug during the winter, if a suitable one can be obtained. In case a large one is bought, it will be employed in towing lumber scows to Chicago, and the *Lawrence* will be kept for local work. Otherwise the *Lawrence* will run to Chicago, and a smaller tug will do her business at this port. The company is looking around Detroit for a new tug, but has not yet found just what it wants.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

The classic moralist bids "*Festina Leate*," but when you want a good pen you cannot get one of Esterbrook's too quickly. The stationers have them. Wholesale by Toronto stationers.

STATISTICS OF LUNATIC ASYLUMS show that nine-tenths of their patients are brought to their condition by abuses of the generative organs. A great Brain and Nerve food, known as Mack's Magnetic Medicine, is sold by our druggists, and comes highly recommended as an unfailing cure in all these diseases. See the advertisement in another column.

TENDERS.

CANADIAN PACIFIC RAILWAY.

Bridge over Fraser River, B. Columbia

TENDERS addressed to the undersigned will be received on or before the 10th day of FEBRUARY, 1882, for furnishing and erecting a Bridge of Steel or Iron over the Frazer River on Contract 61, C. P. R.

Specifications and particulars together with plan of site may be seen at the office of the Chief Engineer, at Ottawa, on or after the 10th of January, instant.

Contractors are requested to bear in mind that tenders will not be considered unless made strictly in accordance with the printed forms. An accepted bank cheque for the sum of $300.00 must accompany the tender, which sum shall be forfeited if the party tendering declines to enter into contract for the work, at the rates and on the terms stated in the offer submitted.

The cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

For the due fulfilment of the contract, satisfactory security will be required by the deposit of money to the amount of *five per cent.* on the bulk sum of the contract, of which the sum sent in with the tender will be considered a part.

This department does not, however, bind itself to accept the lowest or any tender.

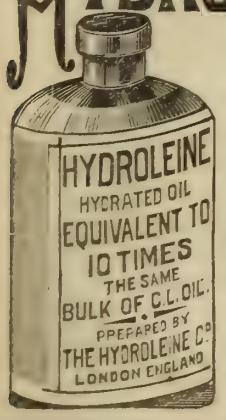
By order,
(Signed,) F. BRAUN,
Secretary.

Department of Railways and Canals,
Ottawa, January 5, 1882. 5d8-law

HYDROLEINE

(HYDRATED OIL.)

An artificially digested Cod Liver Oil.



For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artificial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

For sale by all Druggists.

If you are a man of business, weakened by the strain of your duties avoid stimulants and use **Hop Bitters.**

If you are young and discretion or dissipated or single, old or poor health or languishness, rely on **Hop Bitters.**

If you are a man of letters toiling over midnight work, to restore brain nerve and waste, use **Hop B.**

suffering from any infection; if you are married or young, suffering from ing on a bed of sick- **Bitters.**

Whoever you are, whenever you feel that your system needs cleansing, toning or stimulating without *intoxicating*, take **Hop Bitters.**

Thousands die annually from some form of **Kidney** disease that might have been prevented by a timely use of **HopBitters**

Have you *dyspepsia, kidney or urinary complaint*, disease of the *stomach, bowels, blood, liver or nerves?* You will be cured if you use **Hop Bitters**

D. I. C. is an absolute and irresistible cure for drunkeness, use of opium, tobacco, or narcotics.

If you are simply weak and low spirited, try it! **It may save your life. It has saved hundreds.**

Sold by druggists. Send for Circular.

HOP BITTERS M'F'G CO., Rochester, N. Y. & Toronto, Ont.

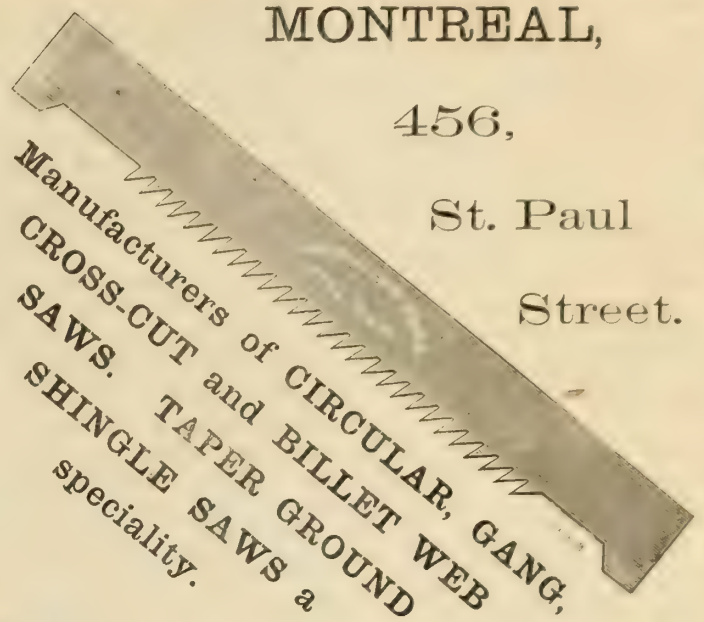
MONTREAL SAW WORKS

MONTREAL,

456,

St. Paul

Street.



Manufacturers of CIRCULAR, GANG, CROSS-CUT and BILLET WEB SAWS. TAPER GROUND SHINGLE SAWS a specialty.

General Mill Supplies always on hand.

General Mill Supplies always on hand.

All correspondence address to Chas. M. WHITLAW, Sec.

1L20

WILLIAM CAMPBELL

(Late CAMPBELL & FOWLER.)

MANUFACTURER OF

Edge Tools, Axles, Springs,

&C., OF EVERY DESCRIPTION.

1L19

Robertson Place, Smythe Street - ST. JOHN, N.B.

ONTARIO ELECTROTYPE AND STEREOTYPE FOUNDRY.

Having added the Latest Machinery to my Foundry, and secured the services of a MOST EFFICENT STAFF OF AMERICAN SKILLED WORKMEN, I am prepared to execute all orders with Promptness. Satisfaction guaranteed.

The Work Produced at my Foundry is acknowledged to be equal to any in the United States, and Superior to any in Canada.

☞Orders from the Country Promptly attended to.
☞Please address all Orders to 1L23

R. SMITH, 26 & 28 Colborne Street, Toronto.

J. G. EDWARDS

HARDWARE MERCHANT,

LINDSAY.

BELTING, FILES, BABBIT METAL, CHAINS, ROPE, and 1L12

LUMBERING SUPPLIES.

We have added to our plant all the latest improved machinery for Electro and Stereotyping, and the manufacture of Printers Furniture, facilities for executing work which no other establishment in the Dominion possesses, and not excelled by any on the continent. A large assortment of various cuts constantly on hand.

FLEMING & SON,
1L9 26 Colborne St., Toronto.

CANADIAN PACIFIC RAILWAY.

Emory's Bar to Port Moody.

NOTICE TO CONTRACTORS.

Tender for Work in British Columbia.

SEALED TENDERS will be received by the undersigned up to NOON on WEDNESDAY, the 1st day of FEBRUARY next, in a lump sum, for the construction of that portion of the road between Port Moody and the West-end of Contract 60, near Emory's Bar, a distance of about 85 miles.

Specifications, conditions of contract and forms of tender may be obtained on application at the Canadian Pacific Railway Office, in New Westminster, and at the Chief Engineer's Office at Ottawa, after 1st January next, at which time plans and profiles will be open for inspection at the latter office.

This timely notice is given with a view to giving Contractors an opportunity of visiting and examining the grounds during the fine season and before the winter sets in.

Mr. Marcus Smith, who is in charge at the office at New Westminster, is instructed to give Contractors all the information in his power.

No tender will be entertained unless on one of the printed forms, addressed to F. Braun, Esq., Sec. Dept. of Railways and Canals, and marked "Tender for C. P. R."

F. BRAUN,
Secretary.

Dept. of Railways and Canals,
Ottawa, Oct. 24th, 1881.
12d102 1L25

OUR QUEBEC LETTER.

From Our Own Correspondent.

DULLNESS OF THE TRADE—MOVEMENTS OF PROMINENT LUMBERMEN—THE SUPERVISORSHIP OF CULLERS—MINING NEWS.

QUEBEC, Jan. 11th.—The extreme inactivity which prevails in the lumber business renders it a difficult matter at this season to compile a very readable or interesting letter on subjects entirely connected with the trade. In face of the very useful and interesting annual statement prepared by Messrs. J. Bell Forsyth & Co., of this city, concerning the season's business in lumber at this port, and the stocks wintering here, which statement has been analyzed in the columns of the CANADA LUMBERMAN, it would be decidedly presumptuous to attempt anything further in this direction.

Quotations it is at present impossible to give, since no transactions have occurred for some weeks back.

Mr. R. R. Dobell, of this city, left town a couple of days ago for Penascola, and will be absent about three weeks.

The firm of Hamilton Bros. & Co., doing business here and at Hawkesbury, Ont., has been dissolved by mutual consent, and the business is now being carried on under the old name and style by the Hon. John Hamilton, of Hawkesbury.

Mr. J. B. Charleson, of this city, has purchased all the standing spruce and pine on Brooks & Tool's lands, at Windsor Mills, in this Province. This, with other lots bought on the same river, makes his purchase of standing spruce and pine foot up to 27,000,000 feet. Both of these lands are quite close to Mr. Charleson's Mills, and in proximity also to a station of the Grand Trunk Railway.

The Arthabaska Timber Co.'s property, consisting of extensive steam and water mills at Arthabaska, with limits, and hitherto the property of the Russel Hotel Co., of this city, has been sold to American operators. The price has not transpired.

The vessels engaged in the lumber trade of Quebec this fall have been, as a rule, singularly unfortunate. Besides those already reported lost, the following over due vessels, of which small hopes are now entertained, are published in the newspapers of this date :—

Bark *Pearl of India*, Captain Kelly, from Quebec, Sept. 21, from Geenock, 1,256 tons register, loaded by Messrs. R. R. Dobell & Co.

Bark *Thomas Lee*, Captain Wilson, from Quebec, Oct. 21, for Whitehaven, 390 tons register, loaded by Messrs. R. R. Dobell & Co.

Bark *Caprea*, Capt. Whittake, from Quebec, Oct. 24, for Newcastle, 735 tons register, loaded by Messrs. R. R. Dobell & Co.

Bark *Ella*, Capt. Sjostrom, from Quebec, Oct. 27, for Dublin, 641 tons register, loaded by Messrs. R. R. Dobell & Co.

Bark *Eastern Empire*, Capt. Love, from Quebec, Oct. 28, for Greenock, 1,751 tons register, loaded by Messrs. R. R. Dobell & Co.

Bark *Matador*, Capt. Ewart, from Quebec, Nov. 1, from Limerick, 420 tons register, loaded by Messrs. Wilson & Co.

Bark *Koomar*, Capt. Morris, from Quebec, Nov. 8, for Plymouth, 1,187 tons register, loaded by Messrs. J. Sharples, Sons & Co.

The appointment of a Supervisor of Cullers for Quebec has not yet been made. There are those who anticipate still that the appointment will be a political one, as it is known that party hacks, possessed of not the slightest business knowledge, are actively canvassing for the position. The trade, generally speaking, however, have reason to hope that the Government will pay some attention to their oft-repeated representations and to the law which requires the appointment of a duly licensed culler.

Mineral matters have looked up somewhat of late. New French capital is expected to pour into the Province next year, to be utilized in developing our mines, and in fact a Mr. Fortin, of this city, has recently received from a French company the sum of $100,000 for a one-half interest in a gold mine owned by him in Beauce. It is the intention of a number of speculators, who hold upwards of 300,000 acres of mining lands in the Eastern Townships, to open an office for the exhibition of specimens and sale of lands, in this city.

A UTILITARIAN PROTEST.

Some opposition is being expressed concerning the proposed reservation of a tract of land in Tulare county, California, as a national park. A bill is now pending in congress with this end in view. This reservation will be for the especial purpose of saving the giant trees that grow on the tract from being destroyed. The opponents of the reservation scheme allege that really there are only two trees of notable size in that locality—the General Grant and Hugh Miller. These stand in a large body of timber, and are seven or eight miles apart. The operators who want to cut this timber, talk as follows :—

"Very few stop to consider that by reserving this large tract considerable money is kept out of circulation. It contains upwards of 15,000 acres of land, with perhaps 300,000,000 feet of timber, of which probably 50,000,000 feet are redwood, or *Sequoia*. It is hard to tell where one kind of tree leaves off and the other begins. The tract lies on the south side of King's River, and has so far been untouched, because it was impossible to haul out or get at in any ordinary way. It will require some $200,000 to utilize the tract, so that cutting and marketing would be of benefit to some persons, of course. Some capitalists had just made arrangements to utilize this tract, and were prepared to spend the above amount of money. The land, as it stands, is represented to be utterly worthless for any small operation, and can never be touched unless done cheaply on a large scale. Of course, as soon as the bill was introduced, the capitalists stopped work. The damage around Lake Tahoe has been exaggerated. Some of the logs have been cut off, but a very large proportion was still left around the shores. One acre out of every 5,000 has been cut off the shores of the lake, and no more. It would be more sensible to create a reservation around that lake than in Tulare county."

There are two sides to this question. If the general government has a right to the land, and can legally reserve the Tulare tract for the purpose of preserving the great trees, no private interests have much to offer against it. If the district is well timbered, so much the better; there will be one forest on the continent that will be saved to future generations, in all its primeval grandeur and beauty, untouched by the destroying lumberman. If forest preservation, by government interference, is to make headway at all, it might as well begin in Tulare county, California, as anywhere else.—*Northwestern Lumberman.*

THAT MERCER TIMBER MUDDLE.

As we have republished criticisms on Mr. Wm. Mercer's account of the Spanish River country, we think it only fair to give the other side of the story, from the *Lumberman's Gazette* :—

By courtesy to Wm. Mercer, we publish the following communication, addressed to this paper. Still we are at a loss to understand by what manner of reasoning he is brought to the conclusion that we have used his name in any sense which savors of an untruthful connection, and Mr. Mercer fails to explain the method by which he reached such a conclusion. We distinctly set forth in our former article that we had very serious doubts that Mr. Mercer had ever made the statements attributed to him by the Chicago papers. Further than this, Mr. Mercer fully corroborates nearly every statement in our former article, not only as regards himself, but also sustains the views expressed by us in relation to Mr. Little, the Canadian, who scourged him so mercilessly. In regard to Mr. Mercer's strictures on the Chicago reporter, we have nothing to say further than that we are now fully satisfied that the representative of that paper misrepresented him.

With regard to the secrecy enjoined by the parties who employed Mr. Mercer, and the pledge thereto, Mr. Mercer's memory must be somewhat short, as by his own statement he divulged the business inside of forty-eight hours after returning from his trip; he has no right, therefore, to find fault with these parties if they do accuse him of a breach of confidence :

DEAR SIR,—As some one has sent me a copy of the *Lumberman's Gazette*, in which I see you are using my name in a very free way, and in by no means a truthful connection, I may say that the *Press* and a Chicago paper seem to have it all their own way, and contain statements that are quite new to me and in fact were never heard of before by me. But not having had an opportunity to see or hear what has been said in the matter, I will state the facts and you can judge how far they agree with the statements made.

When leaving Bay City for Canada on the expedition named, the caution was given to say nothing about the object of the journey. This is the usual custom in all such cases, but they only extend to the time in which the would-be purchaser has the refusal of the land, and are never meant to extend over a whole province, nor to a period of a man's natural life. If I had imagined that the gentleman had the least idea of purchasing the whole of Canada lying between the Georgian Bay and the North Pole, I might have been more cautious, but I considered that after the land was bought it was of little consequence making a secret of it, if indeed any secret were necessary at any time, the land having been advertised for sale in the Canadian paper for several years back, and had been inspected by several Michigan lumber firms before we ever saw it. On my arrival in Bay City I found telegrams awaiting me that I had to leave for Chicago immediately; and being in Chicago next day, and while waiting for a train, I called at a friend's office, and the subject of the Canada Pacific came up, in which the Chicago people are interested as a diverting line for "northwest" freight. A gentleman came in and was introduced, but I did not catch the name (he turning out, however, to be a reporter of one of the Chicago dailies). I made the remark in the course of conversation that the Canada Pacific never could compete with our lines of railroads on this side of the lakes, simply because the road ran through several hundred miles of country that had no local traffic or freight to support it, and consequently had to charge all expenses to "through freight" from the great "northwest," while ours had every few miles along the lakes immense quantities of freight to carry that would share the general expense and make these roads able to compete successfully with any road that can be built. Whether I am right or wrong in this has nothing to do with the question. The question was asked if there was nothing to carry in that section through which the C. P. R. runs. I said I had just come from the country north of the Georgian Bay, and with the exception of a tract of pine on Sable river, and as the Indians reported, also on the Spanish river some distance up, I saw nothing for a railroad to carry, and as these rivers were good streams to drive, I thought all the timber would come out that way. That was the substance of the whole conversation, which I claim was utterly private and not meant for publication in any way, and could not be distorted into an absurd claim of discovering a country that has been settled by whites over 100 years ago; and the Hudson Bay Company have a station near the mouth of the Spanish river that may have been there longer than that for all I know. Now if you read the article in question, you will find that the industrious scribe of the Chicago paper does not state that I made these enormous figures about the pine. That is all his own work from whole cloth, and must have been done on the principle of the natural philosopher, on being given the tooth of a mastodon, will construct the whole animal for you, even to giving you the length of its tail and the kinks thereof. I disclaim any such ability, and as you, Mr. Editor (I refer to Mr. Bennett), have known me ever since you were a boy, you can answer as well as anybody for my veracity.

The above facts are all there is to the matter. Only I must say that, had the member of the firm purchasing the land, who is well known as a professing Christian gentleman, remembered that there was such a thing as "Christian charity," he might have waited before he imputed such motives to me as he has, and if any blame attaches to me, it is in having alluded inadvertently to the subject at all in the company of strangers.

I can't conclude without thanking the Chicago gentleman for my "brevet rank," but as I find every second man here owns the title, I beg to hand it back to him again, unsoiled, as I have never used it.

As for Mr. Little, of Montreal, I have known him for 30 years, and during that time he has written poetry and lumber statistics in large quantities. And if his knowledge of Canada is equal to that of Michigan, as shown by his published statements regarding the supply of Michigan pine playing out every four or five years, I don't think he is in a position to contradict any figures made by anyone.

This is a long article, Mr. Editor, but as you have printed longer ones in regard to me, I think I am entitled to the insertion of this.

WILLIAM MERCER.

Jerseyville, Ill., Dec. 31st, 1881.

QUEEN vs MCFARLANE & MCFARLANE.

OTTAWA, Jan. 14.—The Supreme Court met at 11 a.m. In the Case of the Merchants' Bank of Canada, appellants, and The Queen, respondent, Mr. Bethune, Q.C., was heard in reply on behalf of the appellants. Judgment was reserved.

The case of The Queen (defendant), appellant, and John McFarlane and Duncan McFarlane, (suppliants), respondents, was then proceeded with. Mr. Lash, Q.C., appeared for appellant, and Mr. Bethune, Q.C., and Mr. McIntyre for respondents. The suppliants' petition of right claims payment of certain losses sustained by them, arising from the breaking of a boom at the mouth of the Madawaska River, owned by the Dominion Government as a public work, and constructed for the purpose of facilitating the transmission of saw logs down the Ottawa River. The suppliants were carrying on lumber operations on the Madawaska River, and certain timber and logs owned by them passed into the Government boom at the mouth of the Madawaska. The suppliants charge that the boom-master, by reason of the unskilful and negligent manner in which he performed his duty, allowed a larger quantity of timber and logs than the boom was capable of holding to pass into it, in consequence of which the boom broke, and the timber and logs of the suppliants floated out. That some of the logs were lost, and the suppliants were put to expense in recovering the others. The petition also alleges that the boom was negligently and unskilfully constructed. The petition prays that Her Majesty may be held liable for the losses sustained by them by reason of the unskilful and improper conduct of the boom-master.

To this petition the Attorney-General for Canada demurred for several reasons, among which are :—That no liability on the part of Her Majesty exists towards the suppliants in the premises, the Crown not being liable for the negligence of its servants. That no contract with the suppliants on the part of Her Majesty is shown, and a petition of right does not lie to recover damages not arising under contract with the Crown. That no liability on the part of Her Majesty exists by reason of the insufficiency of the boom or the want of care in the selection or employment of the slide-master, and that Her Majesty is not liable for the negligence of the persons having charge of such works.

The demurrer was argued before Mr. Justice Henry, and judgment given thereon in favour of the suppliants. From this judgment Her Majesty appealed to the Supreme Court. The case was argued, and judgment reserved. This being the last appeal on the list, the Court rose.

Here in Our Own Territory.

IT can almost be asserted that St. Jacobs Oil works wonders. Shortly before the New Year, when I visited my family in Mitchell I found my son Edward, a lad little more than ten years old, very sick. He suffered with rheumatism, and so terribly, that he was perfectly stiff in his limbs, could not possibly walk and had to be carried from place to place. At once I sent for some St. Jacobs Oil, used it according to directions, and in a few days could see evidence of considerable improvement. On the tenth of this month I again visited my family and was astonished to find him well and hearty. He once more has fresh color in his face and can go to school again. Whenever the old trouble threatens to return relief is immediately secured by the use of the celebrated St. Jacobs Oil. From sheer joy over this result I cannot withhold recommending St. Jacobs Oil to suffering humanity as a true benefactor. Charles Metzdorf, office of the *Volksfreund*, German paper of Stratford, Ont.

BAY CITY STATISTICS.

The *Lumberman's Gazette*, of Bay City, Mich., in its annual review gives the following statistics of the business of the Bay County mills :—

Lumber manufactured	972,820,317
On dock at close	282,120,929
On dock sold	118,605,117
On dock unsold	163,515,812
Lath manufactured	65,933,750
Shingles manufactured	354,925,500
Staves manufactured	47,480,959
Headings manufactured	5,440,947
Logs in mill boom	46,495,890

LIVERPOOL.

Messrs. James Smith & Co.'s wood circular, of January 2nd, says :—

The wood market is enjoying a more extensive rest than has occurred for some years. The import has been small and may be considered now closed. The consumption has been good and has exceeded the import, and the present stock is the smallest held for some years past, so that holders are firm, as there is no possibility of replacing any article they have on hand on the same terms. The open winter is general, extending over all the wood-producing countries. The Canadian mail, just in, reports the weather there more like April, and that this is seriously affecting the logging, while here building is still going on, thereby increasing the consumption, and reducing stocks largely. Freights are without change, as is also the money market.

Colonial Woods.—Yellow pine—The import is closed, and the stock is about one-half that of last year. Second-class waney pine, 18 inch average, has been sold at 2s. 3d. per foot, prime at 2s. 6d. per foot, and short wood, 16 inch square, at 2s. per foot. Red pine—The stock is light ; small average has been sold at 15d. per foot. Ash is enquired for, and may be quoted at 2s. Elm—The stock is sufficient. Black walnut continues in good demand, especially for good quality and large sizes ; sales have been made at 5s. 9d. per foot for 20 inch, and larger sizes at 6s. to 6s. 6d. per foot. Chestnut and square maple have been tried this year, and have come forward in good sizes and quality, but prices have not been equal to cost of production. Birch—The demand has been large, and prices have considerably improved ; sales by private have been made for Pictou at 18d. per foot, and St. John's, 604 logs, realized 18½d. and 19¾d. per foot. Oak is more inquired for and the consumption is increasing ; good wood is wanted, and the present quotations are from 2s. 11d. to 3s. per foot, and wagon scantlings, 2s. 8d. to 2s. 9d. per foot. N. B. and N. S. spruce deals—The consumption continues large, and, with the reduced supply, prices are firmer. The present stock is the smallest held for some years past, and is only one-half of last year's ; the stocks wintering at the shipping ports are lighter than for many years, and the advices today report spring and summer weather in Canada, seriously affecting the work in the woods, which cannot progress without snow, so that this state of things must be considered, along with high wages, cost of provisions and scarcity of labour. The estimate of short supply next season is therefore put down at fully 25 per cent. less. The late sales have been of Shediac at £7 13s. 9d.; St. John, inferior specification, at £7 12s. 6d., and by auction, St. John, at an average of £7 15s. ; Musquash at £7 9s. ; Dalhousie at £7 10s. ; Bathurst at £7 10s. per standard. Pine deals—The stock is only 718 standards, and prices have improved ; the last sales were at £7 5s.@£9 per standard for Dalhousie, and £7 10s. for Miramichi. Scantling and boards are wanted ; the former have been sold at £7 2s. 6d. per standard and the latter at £6 10s.@£6 12s. 6d. per standard. Quebec pine deals—There has been more enquiry and the stock is now 3,263 standards less than last year ; sales have been made at advanced rates, and 3rd quality bright realized from £9 5s.@£9 10s. per standard; 2nd at £4 10s. ; 1st at £20 per standard. Red pine deals—On account of the advance in Baltic redwood they are improving in value ; sales have been made at £9 15s. per standard. The consumption of these will improve if shippers can give a greater variety of sizes and are more careful in the seasoning before shipment. Quebec staves are in good demand and the stock is nearly exhausted. Palings have been sold at from 65s. to 82s. 6d. per mille, according to dimensions. Laths, 16s. per 1,200 pieces.

The arrivals since our last have been 30 vessels, 19,949 tons, against 31 vessels, 19,856 tons in corresponding period last year, and 27 vessels, 8,268 tons, in 1879.

From the 26th January to the 31st December, 1881 :—

	Vessels.	Tons.
Quebec	94	78,822
St. John, N.B., &c.	204	152,457
United States	95	98,580
Baltic	139	57,079
Total	532	356,908

From the 26th January to the 31st December, 1880 :—

	Vessels.	Tons.
Quebec	125	119,278
St. John, N.B., &c.	293	217,076
United States	69	55,891
Baltic	226	90,257
Total	713	482,502

From the 25th January to the 31st December, 1879 :—

	Vessels.	Tons.
Quebec	73	66,746
St. John, N.B., &c.	213	151,446
United States	42	37,156
Baltic	149	58,989
Total	447	314 337

Saw Dust.

There are 500 venders of sawdust in New York, with a capital of $200,000 invested, and an annual business of over $2,000,000. Four decades ago the mills were glad to have the saw dust carted away ; 25 years ago it was worth only 50 cents a load at the mills. It is used principally at hotels, eating-houses, groceries and other business places. When wet and spread over floors, it makes the sweeping cleaner work and prevents the raising of dust. Packers of glass, soda water, and many other small articles use it. It is used by plumbers about pipes and buildings, to deaden walls, floors and ceilings. Dolls and some living bipeds are more or less stuffed with it. Yellow pine makes the least dust and the best saw dust, and has a pungent, agreeable odor. Any white wood will answer for the above purposes. Black walnut sawdust, which has generally been burned because it would not sell on the market, has lately proved to be very valuable for the tumbling process of pin manufacture.—*Lumberman's Gazette.*

Effects of Lightning.

In a grove of 500 popular trees, with telegraph wire passing near them, eighty-one, or about one-sixth of the whole number, have been struck by lightning, and this upon the south side of the trunk nearest the wires. Those farthest from the wires are very rarely affected by the electric fluid. The wounds made by this element are said to be of three kinds ; first the bark is shivered and rent upon the side toward the wire, over a narrow portion of the trunk. Second, the thunderbolt traces upon the tree a furrow, more or less broad, according to the severity of the stroke, beginning at a parallel with the wire and descending to the ground, sometimes spirally, but most frequently in a straight line. Third, the wounds are peculiarly formed, being oval, and the edges of the bark are colored a clear brown, These observations were made by M. Montigny, at Didant, France.

Timely Warning.—Now is the season for sudden colds and distressing coughs, treat them with Hagyard's Pectoral Balsam, it cures influenza, asthma, croup, whooping coughs, bronchitis, and all pulmonary complaints leading to consumption.

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

Bishop Beveridge.—A gentleman meeting the celebrated and excellent Bishop, Beveridge, asked him how he was. Beveridge replied : "If I answer in Latin, I am *sic, sic* ; if in English, *so, so.*" There are many, who, if they spoke truly would give the same answer as the excellent Bishop. They have contracted lung disease, or it may be are suffering from asthma, and in great danger of that fatal malady consumption. Take warning in time, use N. H. Downs' Vegetable Balsamic Elixir, it is really what many have called it, the "king" of remedies, Sold by all druggists throughout the Dominion.

Caledonian Hotel,
GRAVENHURST.
JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. 1L10

Simcoe House,
CORNER FRONT and SIMCOE STS.
TORONTO, ONT.
Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms.
1L21 WILLIAM HANCOCK, Proprietor.

The American Hotel,
BARRIE, ONT.
Collier Street, Adjoining the Market.
RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
Every accommodation for Commercial and LUMBERMEN.
1Ltf W. D. McDONALD, Proprietor.

J. DAVIES & Co.
46 Church Street, Toronto.
Sells all sort of Lumber on Commission. Advances on Consignments. Prices given on application. Whole Stocks disposed on very low Commission. 1L11

E. S. VINDIN,
Commission, Shipping, Forwarding and General Agent.
LUMBER MERCHANT
Office, Tempest's Block, Port Hope. 1L1

FRANCOIS MARCHAND,
Manufacturer of all Descriptions of
STEAM BOILERS,
SHIPS WATER TANKS, Etc.
St. Roch Street, 1L7 QUEBEC, P. Q.

CANADA TRUSS FACTORY
(ESTABLISHED 1856.)
F. GROSS,
Manufacturer of SURGICAL and ORTHOPÆDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description. 1L14
688 and 690 Craig Street, Montreal.

P. PAYETT'S NEW IMPROVED
Adjustable Saw Guide !
Can be adjusted without danger. You can take your saw off without taking the guide off the frame.
All kinds of Brass & Iron Casting
PLAINING and TURNING done with Despatch. For particulars address :
CRAIG & CAMERON,
PENETANGUISHENE. 1L12

GRATEFUL—COMFORTING.
EPPS'S COCOA
BREAKFAST.
"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*
Made simply with boiling water or milk. Sold in packets and tins only (½-lb. and lb.) labelled
JAMES EPPS & CO., Homœopathic Chemists,
London England. 1L14

BBB
Burdock Blood Bitters
Burdock Healing Ointment should be used in connection with Burdock Blood Bitters for curing Ulcers, Abscesses, Fevers, Sores, &c. Price 25 cents a box T. MILBURN & CO., Sole Agents, Toronto

THOS. GRAHAM
(Established 1856)
MANUFACTURER OF
New Files FILES Old Files
HAND CUT and made from the BEST refined English CAST STEEL. All goods neatly put up in labelled boxes for the trade, to whom lowest prices will be given.
Price List on application and Sample Order solicited
Re-ground and re-cut by Hand and Warranted equal to NEW for use, at prices that will effect a great saving to Mill Owners and all large consumers of Files. Parties now sending their old files can have them shipped next spring to their order
Factory and Offices: 1L4
35, SHERBOURNE STREET, TORONTO.

WISDOM & FISH
IMPORTERS AND DEALERS IN
Rubber and Leather Belting
RUBBER HOSE, STEAM PACKING,
LUBRICATING OILS, COTTON WASTE
Wrought Iron Pipe and Fittings,
And all Articles used in the Application of Steam to Machinery.
No. 41 Dock Street, St. John, N. B.
(SMALL'S BLOCK.)
N.B.—Estimates for Steam and Hot Water Heating Apparatus furnished on application. All work Warranted. 1L15

"NIL DESPERANDUM."
TRADE MARK

Important to Nervous Sufferers.
THE GREAT ENGLISH REMEDY for Nervous Debility and all Nervous Affections, including Sperm[illegible] Weakness, etc., resulting [illegible] etc. DR. GRAY'S SPECIFIC MEDICINE. This is the only remedy which has permanently cured [illegible] affections of the [illegible] in its earlier [illegible] blood to the head.
BEFORE TAKING Sick Headache, Wind in the Stomach, Indigestion, Loss of Memory, Want of Energy, Pain in the Back, Spirits, Indisposition, Lassitude, Pain in the back, Dimness of Vision, Premature old age, etc. Full particulars in our pamphlet which we send securely sealed on receipt of a cent stamp. The Specific is now sold by all Druggists at $1 per package, or three for $5, or will be sent free by mail on Receipt of money by addressing THE GRAY MEDICINE CO., 3 Mechanics' Block, Detroit, Mich. 1L21
TRADE MARK

AFTER TAKING.

N. H. DOWNS' ELIXIR
N. H. DOWNS'
Vegetable Balsamic
ELIXIR!
This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:
Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,
and every species of oppression of the Chest and Lungs. In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that
CONSUMPTION
is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry: then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all morbid irritations and inflammation from the lungs to the surface, and finally expel them from the system. It facilitates expectoration.
IT HEALS THE ULCERATED SURFACES
and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent articles, which are of so drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the cause, generally destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price 25cts. and $1 per bottle. Sold everywhere.
HENRY, JOHNSONS & LORD, Props.
MONTREAL, P. Q.

Travelling Agent.

MR. A. L. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

Terms of Subscription:

One copy, one year, in advance	$2 00
One copy, six months, in advance	1 00

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Per line, for one year	$0 90
Per line, for six months	50
Per line, for three months	30
Per line, for first insertion	10
Per line, for each subsequent insertion to 3 mo's.	05
Cards not occupying more than 12 lines (1 inch) per annum	8 00
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Cards not occupying more than 6 lines, for 6 mo's	3 00

Special rates will be made for page, half page and column advertisements.

Advertisements intended for insertion in any particular issue should reach the office of publication at east three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. FEB. 1, 1882.

MR. WM. TAIT, of Gravenhurst, has sold his saw mill and timber limits to Mr. Chas. Mickle, for something over $20,000.

A MUSKEGON paper asserts that in making an inventory of its property, the Muskegon Boom Co. found that its boom chain was 31 miles long, and a value was placed on it amounting to $32,000.

TWO lumber camps at Hubbard Lake claimed the same landing. The result was a kind of guerrilla warfare, until the men at one of the camps cleaned out the other—the foreman of the vanquished camp taking to town in his shirt sleeves.

THE season thus far has been open in Norway as well as in this country. Cutting timber does not begin in that country till the frost makes the bogs passable, and the snow permits of hauling logs. Both these conditions were wanting at a late date.

PROBABLY more saw mills are being operated this winter than ever before in the history of lumbering. This is owing partly to the open weather so far experienced, but more to the great demand for special sizes which have to be cut to order.

FOR the season of 1881 Cheboygan shipped board timber, 410,000 cubic feet; cedar posts, mixed, 40,500; cedar posts, paving, 80,750; cedar railroad ties, 117,500; hemlock ties, 2,000; tamarac ties, 2,000; telegraph poles, 5,000; tan bark, 673 cords. It is estimated that during the coming season she will ship 150,000 posts, 100,000 ties, and 500,000 cubic feet of board timber.

THE last quarterly report of the state board of agriculture of Kansas contains a statement of the number of acres of timber planted and growing in that state, other than the native forests. The statement is made by counties, and the totals appear as follows:—Walnut, 5,895 acres; maple, 6,453; honey locust, 1,215; cottonwood, 39,108; osage orange, 617; catalpa, 788; other varieties, 38,763.

THE shipbuilding trade on the Clyde has now assumed gigantic proportions. From the statements of the launches at five districts on the river—say from Glasgow to Greenock, or within a distance of 22 miles—it is shown that there have been built, during 1881, 217 steamers and 52 sailing vessels, representing a total of 331,868 tons, and an estimated value of about £7,000,000. The largest steamer launched was 7,392 tons register.

THE failure of McGauvran, Tucker & McDonnell, of Montreal, is reported. This firm were engaged in the lumber trade, and effected a compromise with their creditors in 1879, at 50 cents on the dollar. Their present liabilities are placed at $200,000, the heaviest creditor being the Bank of Commerce, which has a secured claim of $30,000, and an nnsecured one of $10,000. The assets are nominally placed at over $200,000, of which $160,000 is in real estate.

THE Montreal *Witness* says that a contemporary makes a good suggestion in proposing to make the approaching Forest Preservation Convention in Cincinnati an international affair, so that Canada might take part in it. Of course a Canadian convention could be arranged for, but the combined experience and thought of the whole continent upon the subject, which would find expression in an international convention, would return greater benefits to all concerned than would separate conventions.

The *Globe* in its annual report of the trade of the city of Toronto, estimates the consumption of lumber during 1881 at 80,000,000 feet, (as against 65,000,000 in 1880), made up as follows:—Lumber, 45,000,000 feet; shingles, 15,000,000, and lath, 2,000,000. The same report also notes a considerable development during the past year in our native hardwood trade, and predicts a good demand next season for black ash, maple, elm, and birch timber, all of which are now being largely used in the manufacture of furniture.

AN Ottawa correspondent says that the unprecedented scarcity of snow at the beginning of the season has had the effect of considerably shortening the lumbering season, yet reports from these districts are not such as would lead to an anticipation of any shortage in the supply for the season. The recent fall of snow has greatly facilitated the hauling of timber from the more remote districts, and it is being prosecuted with great vigour. The fears entertained by some of the lumbering firms at the commencement of the season that there would be a scarcity of teams occasioned the unusual high rates that prevailed at that time, since when, however, rates of hire have considerably fallen, and no scarcity of horses is reported. In many of the higher and rougher districts the absence of a sufficient quantity of snow renders the hauling still somewhat difficult.

WOODS AND FORESTS.

An attentive reader of the debates in the Ontario Legislature, now in session, cannot have failed to notice the fact that unusual attention has been given to the subject of our forests and the lumbering industry. Of course the disallowance of the Rivers and Streams Bill has raised much discussion, and several members have devoted much of their attention to it. But this is not all. Member after member has spoken, at more or less length, as to the necessity for protection from fire, the preservation of timber, and the perpetuation of our forests. But though this is very satisfactory, as showing the increasing interest that is felt in this important subject, it is unfortunate that no practical step has been taken in the matter.

The establishment of a separate Department of Woods and Forests would be of great public benefit. We hope that the Government will take this matter into immediate consideration, for there is now no more important subject to which they could turn their attention. If the administration does not act in this matter, some private member, and there are several who are fully competent, would render a public service, and secure for himself the gratitude of the whole community, by taking up the subject and pressing it upon the attention of the House and the country.

With the formation of such a department we feel confident that a better system in regard to our forests would be inaugurated, and therefore we abstain for the present from pointing out the details of the legislature that is desirable.

Who will move in this matter and earn the thanks of the whole country?

TIMBER STATISTICS.

The United States Government have already issued several valuable documents giving the statistics of their forest areas, as compiled from the recent census returns. There is thus made public, on the best authority, the extent of the forest wealth of the country.

We trust that our own Government will follow this good example. It is of the utmost importance that we should know the extent of our standing timber, and the probable duration of the supply.

It is true that rather unfortunately the crown lands and forests were vested at Confederation in the several Provinces, who enjoy the revenue to be derived from them. But in reality this is no Provincial question. The whole Dominion is deeply interested in the prosperity of the lumbering industry, and has even a greater, if deferred, interest in the preservation of our forests, in view of the probability, that if the present system continues, we may in time become a timber importing, instead of exporting, country. These considerations make trustworthy statistics very desirable.

APPRECIATED.

We publish the following as a specimen of many gratifying communications that we are receiving, and which prove that the CANADA LUMBERMAN is appreciated:—

BISMARCK, West Lorne P.O., Jan. 17.

To the Editor of the Canada Lumberman:

DEAR SIR,—Herewith find two dollars for another year's subscription for the CANADA LUMBERMAN. It is really a valuable paper for lumbermen, and I was glad to see you start it. Hoping you will have the success your enterprise deserves, I subscribe myself as one of your patrons and wellwishers,

J. C. SCHLEIHAUF.

LOSS BY FIRES.

From a Special Correspondent.

The loss sustained by mill owners through fires in 1881, as far as ascertained, is as follows:—

Henry Allen, Stayner, Ont	$10,000
Anderson & Tennant, Hendrie, Ont	15,000
Ball, Caledonia, Ont	partially insured
Thos. Bryson, Coulonge, Que	16,000
Robt. Bingham, Bordeau, Ont	unknown
John Boyd, Whitevale, Ont	2,000
M. Cryderman, Northampton, Ont	1,500
S. Currie, Bardsville, Ont	2,000
O. Collins & Co., Gorrie, Ont	4,000
Coleraine Mining Co., Black Lake, Que.	15,000
S. M. Elliott, Elgin, Ont	2,000
A. Eyer, Richmond Hill, Ont	10,000
E. B. Eddy, Hull, Que	15,000
H. R. Fleming, Weydale, Ont	500
W. A. Fraser, Wallacebury, Ont	4,500
Jos. Gaudette, St. Anne's, Que	15,000
Georgian Bay L. Co., Waubaushene	75,000
H. Gawley, Belle River, Ont	6,000
J. W. Harrison, Brantford, Ont	4,000
Howard, Etchemin, Que	1,500
R. Irwin, Spence, Ont	2,000
Geo. Kent, Delta, Ont	6,000
Kingsford & Co., Lindsay, Ont	6,000
J. Lawson, Orangeville, Ont	3,000
Papineau, Montreal, Que	30,000
Snider & Goff, Holton, Ont	3,000
Scott & Wagram, Napanee, Ont	2,000
W. Tait, Gravenhurst, Ont	14,000
A. Thompson, London, Ont	4,000
Woodstock Lumber Co., Gravenhurst,	unknown
Lindsay Mills, Lindsay, Ont	20,000

THE SWEDISH SUPPLY.

The *Timber Trades Journal* says that although the returns of the exports from Sweden for 1881 have not fully been made up, we can, by adding about 5,000 standards for December—and the amount seldom exceeds these figures—come pretty near to a correct return. Making this addition, we arrive at the following comparative rough totals of the exports of sawn and planed wood from Sweden for the last ten years, and likewise for the year 1868, all expressed in St. Petersburg standard hundreds, viz.:—

1868	430,000	1877	640,000
1872	550,000	1878	565,000
1873	535,000	1879	620,000
1874	500,000	1880	635,000
1875	500,000	1881	660,000
1876	585,000		

These are remarkable figures, and show that if the increase for the next fourteen years is in anything like the same proportion as in the fourteen last years, we shall be up to a million standards before the century is out. The possibility of such a thing will doubtless be tabooed by many members of the trade here, but I do not consider it at all unlikely. The population of the United States and Canada is increasing at the rate of about one and a half million yearly, and, if we are to lay any stress at all on the outcry in those countries, the dark spot on the horizon of the Swedish timber trade, referred to in the late report of the Society of Saw Mill Owners, &c., viz., America, may be expected to diminish in size yearly, and, if so, the forests in Europe will be called on for an increased supply. The question whether they are capable of supplying this increased demand in perpetuity is another thing, that cannot be entered into here with advantage.

Lumber Districts in the South.

A Southern States paper gives some facts which show that those who prate continually about the imminent exhaustion of forests leave a most important forest country out of account. The States of Tennessee, Alabama, Arkansas, Florida, Georgia, South Carolina and West Virginia, contain in the order named from 58 to 66 per cent. of forest land, whereas, Maine and Michigan, which now produce one-half of the lumber used, contain only 47 and 40 per cent. of forest land. North Carolina, Louisiana and Mississippi have an even greater extent of forest land still untouched than the states just named. Neither is the world generally aware of the good quality of the timber in the south. All the trouble is that, owing to the absence of snow the wood is not won so cheaply as in the north.

Glasgow.

The *Timber Trades Journal*, of Jan. 7th, says that there has been little business done during the past week, being the New Year holiday season. Imports of wood to Glasgow and Greenock amount to 500 loads, consisting of sundry parcels of wainscot oak and staves, &c., and a small cargo of Riga redwood at Greenock. In view of prospective requirements for shipbuilding and other operations the aggregate stock (all descriptions of wood) now in the Clyde ports appears moderate, being decidedly under the average of the three preceding years, though equal on the whole to the quantity held a year ago.

Wood for Paper Making.

Wood is going in to the Yarker paper mills with a rush in this good sleighing. The thermometer is 22° below zero. The Napanee Paper Mill Company are buying up all the standing wood in the vicinity. They bought 600 acres from E. W. Benjamin, in the drowned lands, for $6,000, for the wood, and also purchased all of H. McConnell's in Portland. They are drawing the wood to the river bank in order to float it in the spring to the mill. The Napanee Paper Company want to get a start of the new Company.—*Kingston Whig.*

IT has been decided by the Menominee, Michigan, Manufacturing Company to cut a sluiceway around Little Quinnesec falls, on the Michigan side of the Menominee, to facilitate the driving of logs, and to prevent their becoming injured by battering on the rocks as they pass the falls.

THE *Timber Trades Journal* says:—"We notice the prospectus of a new company, which may possibly affect the supply of pine deals to this country. The "Dominion of Canada Freehold Estate and Timber Co., Limited," is formed to acquire possession of an estate of 80,000 acres, situate on the banks of the St. Lawrence, about 150 miles from Quebec, and nearly opposite Rimouski. An engineer's report, accompanying the prospectus, sets down the value of the timber at £800,000, said to consist of pine, red and white spruce, silver birch, and aspen. With a working capital of £15,000, the annual profit, to be derived from the sale of timber alone, is estimated at £24,000.

THE *Timber Trades Journal* says that serious havoc was committed in the policies and woods of Dunse Castle by the gale of the 14th October, thousands of trees having been uprooted. In the avenues and parks around the castle, sixty fine old trees, many of them of large dimensions, have been replanted; the remainder of the fallen timber, estimated at over 50,000 trees, has been sold to Messrs. Brownlie, Earlston, who engage to remove it within four years. The purchasers are to be allowed to erect saw-mills on the estate to cut up the wood.

LAME BACK.—Lumbago, Kidney complaint, Neuralgia, Rheumatism, and all pain and inflammation are speedily cured with Hagyard's Yellow Oil. Croup, sore throat, colds, burns, scalds, bruises, frost bites, chilblains and all wounds of the flesh are quickly healed by Yellow Oil.

"DON'T GIVE UP THE SHIP" were the memorable words of Commodore Perry. We repeat, "Don't Give up the Ship," poor, despairing invalid, but try Burdock Blood Bitters. It cures others, why not you? It renovates, regulates and tones all the organs of secretion, and restores lost Vitality.

HOW TO CURE A COLD.—Upon the first feeling of chill or shivering remain indoors if possible, bathe the feet in tepid water, gradually increasing the heat as long as it can be comfortably borne, drink freely of warm ginger tea or sage tea, to induce perspiration, and take Hagyard's Pectoral Balsam according to directions on the bottle. Hagyard's Balsam cures coughs, asthma, and bronchitis.

HAD SUFFERED MANY PHYSICIANS and grew no better but rather worse. Mr. D. H. Howard, of Geneva, N. Y., after dismissing his physicians, tried nearly half a gross of the various blood and liver remedies advertised, no benefit; when one bottle of Burdock Blood Bitters cured him of Paralysis and General Debility. At the advanced age of 60, he says he feels young again, and is overjoyed at his wonderful recovery.

CHOPPING AXES

(Made to Order and on hand.)

MILL PICKS DRESSED in a first-class style. Those shipped by rail will be returned promptly.

☞Lance Tooth Saws Gummed. AXES WARRANTED. 3L24

W. HERLIHEY, Lindsay.

NEW FOUNDRY FIRM.

McLean, Brayshaw & Co

Simcoe Street,

PETERBOROUGH.

CASTINGS of every description in Brass and Iron.

All sorts of MACHINERY for Saw and Grist Mills.

STEAM FEED for Circular Saws.

Also Saw Gummers, Cutters, Double Upset Swages, and all Saw Tools.

Send for Price List. L4

CANADIAN PACIFIC RAILWAY COMPANY.

The Canadian Pacific Railway Company offer lands in the FERTILE BELT of Manitoba and the Northwest Territory for sale at

$2.50 PER ACRE,

Payment to be made one-sixth at time of purchase, and the balance in five annual instalments, with interest at SIX PER CENT,

A Rebate of $1.25 per ACRE

being allowed, on certain conditions, for cultivation and other improvements.

THE LAND GRANT BONDS

of the Company, which can be procured at all the Agencies of the Bank of Montreal, and other Banking Institutions throughout the country, will be

Received at 10 per Cent. Premium

on their par value, with interest accrued, on account of and in payment of the purchase money, thus further reducing the price of land to the purchaser.

Special arrangements made with Emigration and Land Companies.

For full particulars, apply to the Company's Land Commissioner, JOHN McTAVISH, Winnipeg; or to the undersigned. By order of the Board.

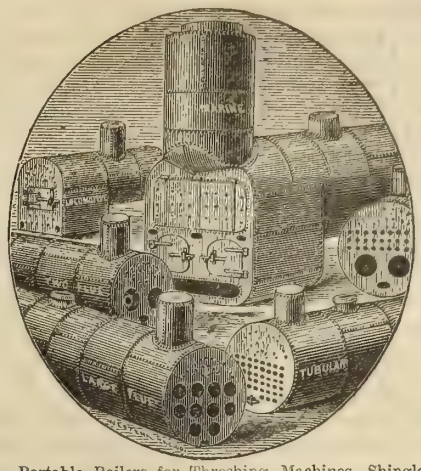
3L2 CHARLES DRINKWATER,

Montreal, December 1st, 1881. Sec.

John McGregor & Sons,

MANUFACTURERS OF ALL KINDS OF

STATIONARY,
MARINE, and
LOCOMOTIVE BOILERS,
And SHEET IRON WORK.



Portable Boilers for Threshing Machines, Shingle Mills, etc., furnished on short notice. All Boilers tested by cold water pressure to 150 lbs. to the square inch before leaving the shop,

SECOND-HAND MACHINERY

BOUGHT, SOLD, OR TAKEN IN EXCHANGE FOR NEW WORK.

☞ *Repairs Promptly Attended to.*

188 Atwater Street, Detroit, Mich.

BRANCH SHOP,

Cor. Glengarry Ave. & Stuart St.

1L11 WINDSOR, ONTARIO

UNION FOUNDRY

Union Street, - - - Carleton,
Warerooms, Water Street,

ST. JOHN, N. B.

Allan Brothers

(Late of Harris & Allen)

MANUFACTURERS OF ALL KINDS OF

Steam Engines

AND

MILL MACHINERY.

Ships Windlasses, Iron Capstans

and Ships CASTINGS of all kinds.

Ships Cambooses & Cabin Stoves

COOKING AND HEATING

STOVES,

Shop, Office and Parlor Stoves, and Franklins.

Agricultural Implements.

BRASS CASTINGS.

Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.

1L18

CURRIE BOILER WORKS

ESTABLISHED 1852

MANUFACTURERS OF

STEAM BOILERS.

NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTIN & Co.

C. H. FLEW WELLING,
ENGRAVER
ON
WOOD
Designs & Engraves
Illustrations of all kinds.
KING ST.
St. JOHN, N.B.

Has Facilities

—FOR—

DOING as GOOD WORK

—AND AS—

PROMPTLY

As any Engraver in Canada

ESTIMATES FURNISHED.

WANTED.

ABOUT

250,000 ft., board measure, of First Quality WHITE OAK TIMBER,

AND

100,000 feet of one-inch PINE BATTENS, for Car Sheeting.

For further particulars address P. O. Box 514,

3L1 MONTREAL, QUE.

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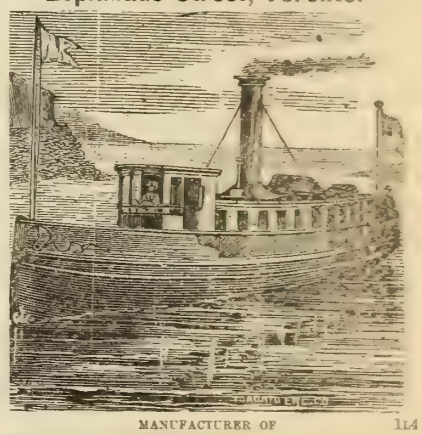

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FORESTRY, ITS CLIMATIC AND HYGIENIC INFLUENCE.

The following essay, by M. McQuade, Egmondville, we take from the report of the Agricultural and Arts Association of Ontario, for 1881 :—

"Remarks.—If the following rough sketch shall be the means of adding one acre to our forest area, shall add fertility to one acre of land, shall be the means of adding to the beauty of our landscape, the comfort of one family, the grateful feelings of one true Canadian, the efforts of the writer will be amply rewarded.

How rapidly our world moves, and circumstances with it! Seems but yesterday since he who would think of saving timber in Ontario would be considered a madman. It is only forty years since this part of our peninsula was almost an unbroken dense and magnificent forest, when the sole aim of the pioneer was how most readily to get the timber burned, destroyed, or put out of the way in any fashion most speedily. Such a desire was commendable under the circumstances ; but the practice has been carried too far by all and to a ruinous extreme by some—partly through ignorance, and partly through a mistaken desire for gain, by which they bartered the few remaining trees for a few cents. The plea set up by this class of people is that an acre of grass or grain is worth more than the timber. This would be very good thirty years ago, when clearings were small, but when the timber belts are getting so thin that they are scarcely sufficient to break the breeze or arrest the snow drift, when the owner of these wantonly sacrifices his few remaining trees because cordwood is three dollars a cord, such a one is not only inflicting an irreparable loss on himself, but on the whole community. A custom prevailed, at least in this vicinity, of cutting down every tree and twig along roadsides and boundaries, leaving the country treeless and marked only by dead line fences. Such conduct is wrong, and can be corrected by planting rapid growing trees on roadsides and boundaries, and the sooner the better for all concerned. Want of knowledge of nature's laws is the cause of such a state of things. Our ordinary farmers never imagine that a few trees scattered through their fields can have any effect on their grain crops other than as so many obstacles in the way of the plough, the reaper, and the horse-rake ; and the boy who drives these declares that they should be cut down. We all know that it is very convenient to have a piece of timber to furnish our winter's fuel, to make a few fence rails and the like ; but how few ever think that those trees are not only nature's ornaments, but the farmer's best friend in tempering either a hot or cold climate, in producing copious dews, frequent showers, increasing snow falls, not to speak of their grateful shade, friendly shelter, and mercantile value. How many of our people think of these? How many can believe the natural fact that when our timber belts shall have been cut or blown down, the farmers of Ontario can no more grow fall wheat than they can in Minnesota and Dakota ; that showers in summer will be rare and uncertain ; that those terrific storms which cause such destruction in prairie districts will sweep our Province with merciless fury ; that our overflowing springs will diminish and dry up ; that where water can now be got at from fifteen to twenty feet, none will then exist ; that our rivers will dwindle down to a few stagnant shallow pools ; and that the crystal brook in which the speckled trout was wont to leap and gamble, in days gone by, now presents only a crooked line of dry gravel from June till January? In those days of universal tillage the grass will burn off the earth, the cattle perish for want of water—and why? Because we have not the everlasting snow-capped mountains hanging over us to feed our creeks and springs, because we have destroyed our forest trees which nature's Great Architect planted for that purpose. Do our people know all this? Will they believe it when told? O! that some mighty genius with the tongue of Demosthenes, eloquence of Cicero, and pen of Homer, would proclaim it in every hamlet throughout the length and breadth of our fine young Province before it is too late! Will not the press of our country announce in thunder tones the dire fate that awaits this garden spot of America, if the remnant of our once magnificent forests is not spared and saved from utter destruction?

Someone may say that we have been trying to manufacture an agricultural fright, that we are courting an imaginary evil. Would that we were wrong, or that nature's laws could be reversed. Such is not the case, however ; they are all stubborn facts, and in painting them we have not used the darkest colours, nor even the deepest shade which our brush would give in the hand of a master. We shall try, in a simple and familiar way, to prove what we have advanced from a farmer's view of the case, with a few facts from science as corroborative evidence, and we must remember that when nature speaks she means it, and science applied is nature's voice modified.

Everyone will admit that a fertile soil is the most desirable feature in a farming country, but a soil to be fertile and retain its fertility must be irrigated from the clouds, either by snow or rain. It is also a melancholy fact, too patent to many on some of the prairie sections of Western Kansas, that a soil, however fertile, is useless without rain, and what is true there is true here. Take our richest land and sow it with any crop and let not a shower fall on it from January till November, what will be the result? Failure. Rain must be had to grow a crop on any land away from the sea shore ; frequent showers mean good returns in a warm climate. To insure these, there must be a source of supply and means of distribution. There must be a wet surface from which the rain cloud can be formed ; there must be a medium to attract and condense that cloud, else it will constantly float in mid air and never descend. We must remember that rain and dew clouds are produced by evaporation from the wet surfaces on the earth, just as steam rises from a boiling kettle. Now, it is easy to understand that if the kettle is dry there will be no steam. In the same way, when our water supply runs short, our dew and rain clouds will be deficient. What is the experience of the old settlers on this point? Will they say that our water supply is now what is was forty, thirty, twenty, or ten years ago? Let the facts speak. Thirty years ago the brook which runs through Egmondville furnished water to turn a great undershot wooden bucket wheel, about eight feet wide and ten feet in diameter, to drive two run of stone ; also sufficient to drive a saw mill. The saw mill ran during about six months, and the grist mill had water to run the whole year through, except perhaps a week or so in September, when a full head could not be got. Imagine the volume of a stream eight feet wide and two feet deep at a rapid current for twelve months. A few years later water began to shrink, when the old bucket wheel was displaced by a centre discharge, and the saw mill was put on short time. Ten years later the grist mill had to rest in September by reason of low water. It after this passed into other hands and an improved turbine took the place of the centre discharge, but even with this great economizer of water power, steam had to be introduced, and this magnificent stream has to-day, and since the middle of June, not sufficient water to wet its bed, except in a few places, where some bush land is on both sides, a few small pools of green, stagnant water may be found. Twenty years ago the lover of sport could catch trout, bass, chub and suckers, at any time in summer, from Bayfield to Dublin, or shoot the grey or wood duck ; to-day there is not sufficient water in its whole length to keep a decent family of frogs in drink. This instance is the history of all similar streams in this country. Twenty years ago there were swamps and patches of low land, where water could be got for cattle, if not on the surface, at most at the depth of a foot or so during the driest part of the summer ; now, twenty to forty feet is the level, and, at the time of writing (the 16th August), complaints are numerous that wells of twenty feet and over, sources which did not fail in the past thirty years, are dry. What a change—gradual, sure and great ; leaving cattle and owners without a drop to wet their tongues. Since every effect has a cause, we must have one for this great change. Will anyone say that the days are getting longer, the sun hotter, the earth going nearer the source of heat? Certainly not. Then what great physical cause has brought about this physical result, for the cause is here and is local? What local change has taken place over the face of our country in forty years, and has continued up to the present time? What is the comparative area of tillage and timber land now and thirty years ago? He who will answer this question exactly will show the cause why wells and streams are dry at present. He who, on this data, with the present rate of destruction of our woods, would institute an exact mathematical calculation, could determine how long it would be till farming and stock raising must cease in this part of Ontario ; how many years it would take to cut off our water supply entirely during the summer months, except what might accidentally be got from some stray tornado or violent snow storm in winter. We may venture a rough estimate at present. We now know the cause, and, since it is local, shall not take in the whole country, but use the two adjoining townships for comparison. Forty years ago the proportion of woods to cleared land was about as 98 to 2 ; thirty years ago, as 80 to 20 ; twenty years, as 70 to 30 ; ten years since, as 60 to 40, and to-day, as 15 to 85. Our water supply has dwindled down from 60 to 15 inches, or 400 per cent. in ten years. We hope to be able to prove that it must always, in an inland country like ours, keep in exact proportion with the area of timber growing in the country immediately around.

HOW GROWING TIMBER ATTRACTS MOISTURE FROM AIR AND PRODUCES WATER.

To understand how timber land acts in condensing moisture from air, we must have some idea of the agencies at work in the structure of it and the effects of these agents on external air ; in other words, we must have some idea of how trees grow. This we shall try to sketch in a few simple words. The tree, like every other vegetable, is made up of two kinds of substances, one called mineral elements and the other vegetable, or organic elements. The first set of elements is composed of the alkalies, potash, soda, with flint and rust, or what chemists call oxide of the metals, iron, magnesium, manganese, calcium, together with sulphur, phosphorus, and traces of other minerals sometimes. These substances it gets from the subsoil, and when we burn a piece of timber in the open air, they will be found in the ashes. Now, if we examine the little mouths of the roots, or the sap vessels of the new wood, we will easily conclude that pieces of iron rust, little grains of manganese, pieces of limestone, little bits of bone dust, or granules of flint, could never get through them alone, although all these are formed in the ashes, and therefore formed part of the wood. They entered the extremities of the radicals in a decomposed form and in perfectly thin solution. The air enters the soil, seizes the mineral compounds, decomposes them, reduces them to their simple elements ; the water of the soil and the subsoil takes up the newly-born substances, some as gases, others fine atoms ; the little spongy roots suck up the water, which is now the sap that courses through the newer wood ; it reaches the leaf, where the air again acts upon those mineral elements and prepares them to form part of the vegetable structure by being deposited in the rind, or where the next coating of new wood is to be formed. The water which carried them to the leaf, having performed its mission, is poured out on the air as vapour. Herein lies the benefit. Who has had on a garment thoroughly wet through to the skin and allowed it to dry on his back and felt warm all the time? Even in the warmest day in summer will not a wet shirt produce cold? Everyone knows how much heat is required to boil water in the open air. It is just so at the surface of the leaves ; every drop of that water which was thrown off is changed into steam and the operation sends a volume of cold, or, philosophically speaking, destroys or absorbs a volume of heat in the air, and the result is the condensation of the vapour of the air into rain clouds which, when of sufficient density, come down in showers. Where vegetation flourishes, the air is always humid, and only needs cold to bring it down in dew, rain or snow. To illustrate this, let anyone fill a jug or glass pitcher with cold water, wipe the outside perfectly dry, and set in a close, warm room, when, in a few minutes, it will be covered with dew ; and if the room has been quite warm and the water below 40 degrees, the drops will assume quite a considerable size and run down to the table. This is a miniature example of what is going on above the tops of our forest trees. But we saw that the trees drew a large supply of water from low down in the subsoil ; they also condense much of what is constantly flowing around them in the air and suck it in through the lower layer of veins in the leaf ; strain the carbon, ammonia, and other vetegable foods from it ; then send it out again through the upper layer as vapour, still adding to the cooling process. This accounts for the refreshing coolness experienced under the shade of growing trees, and the greater the heat of the weather, the more rapidly will evaporation go on and the more cooling the shade. Hence, no shade artificially constructed can equal nature's living canopy, so beautifully designed and wisely constructed that they not only neutralize the fierce rays of the sun, drink up poisonous and noxious vapours, but pour out a plentious flood of oxygen to vivify man and beast under the debilitating and lethargic influence of continuous hot seasons. This is called ozone, and is composed of two measures of oxygen gas in chemical union. So wonderful is its effects supposed to be, that it was made a specific by quacks and itinerant medicine men ; yet, beneath the shady ardour, or in the open forest nature showers this precious medicine around our heads. Although not strictly relating to forest growth, yet a product of it, a hint of its source may not be uninteresting here. All the mineral elements which are carried from the subsoil are united to oxygen in their natural state, but since the tree does not need this oxygen, it is set free in the leaf ; the carbon of the soil, as well as the carbon of the air, which the tree must have, are both got through union with this same oxygen gas. Here, then, is a double supply of oxygen to spare, and a chemical union takes place, forming the double oxygen compound, ozone. Not having an authority by me, I cannot give its specific gravity, but conclude that it must be heavier than air, and, therefore, falls rapidly towards the earth. From these facts it is clear that no shade for man or beast is equal to green spreading foliage. Cattle especially should have plenty of such shade, and milking should be done under the shade of trees with green grass under foot if we would secure pure, sweet milk, free from unhealthy odors.

HOW MUCH WATER IS YIELDED BY AN ACRE OF WOODS?

Since we know with certainty that on growing timber we must depend for our supply of water, a very natural question is, How much water will an acre of our forest supply during the season of growth? This question can only be answered with approximate certainty, as it will depend on the leaf surface, the age, vigour and kind of trees, as well as the length of day in summer, the duration of the growing season, and the heat and light to which it is exposed, together with its situation in a moist or dry atmosphere, as well as the general rate of motion of the air during the season. In order to solve this question, Professor Rutland, Vermont, instituted an experiment in 1789. The tree selected was the hard maple. Two leaves and a bud of a branch were sealed in a bottle while yet attached to the tree. The expired water collected and weighed was found to amount to 16 grains in 6 hours. The tree was 8½ inches in diameter, and thirty feet high. It was cut down, and the leaves carefully counted were in number 21,192. Supposing all these to have evaporated like those in the bottle, they would have expired, in twelve hours, 339,072 grains of water. A very moderate estimate, and below the usual quantity of wood per acre of similar land, gave four such trees to a rod, or 640 per acre. At 7,000 grains to a pint, 3,875 gallons, or 31,000 pounds, of water were evaporated from an acre of woodland in twelve hours. On the 26th of May the maple leaves were one-sixth of their full size, and on the 15th of September following these leaves began to turn white. By throwing the fifteen days in September and the four days in May out of the calculation, the leaves may be considered fully developed for the three months. During these ninety-two days the evaporation would have amounted, at twelve hours a day, to 2,852,000 pounds. The rain at that place

during that period was 43 4-10th pounds to every square foot of surface, equal per acre of 43,560 feet, 1,890,504 pounds. From this it is clear that the amount of water by evaporation from an acre of woodland exceeded the quantity of rainfall during the same period by nearly 1,000,000 pounds of water to the same area, and, if the calculation had taken in fifteen hours to the day in July and August, as expiration goes on rapidly when the sun shines, the quantity would have been much larger.

Such experiments are of vast importance in determining the proportionate quantity of timber to cleared land, in order to secure a sufficiency of rainfall during the summer. But this one, though valuable in proving one of nature's laws, is not of any definite practical importance as a means of guiding us in Ontario, since our location is different with regard to many important essentials, such as soil, proximity to ocean, elevation above sea level, and relative timber and cultivated surface; but such an experiment, carefully conducted, in any particular locality, and careful estimates based upon it, should be able to estimate pretty correctly what area of leaf surface would be required to insure a full crop under ordinary circumstances.

[*To be continued.*]

Preserving Woods.

That mortar is a preservative of wood is a fact well known, and many instances are noted of its value for this use. It has recently been stated that a schooner of unseasoned Maine timber, laden with lime, which went ashore and bilged forty years ago, was raised some time after and is still in service. Another instance is that of a platform, consisting of nine planks, which had been used successively by father, son and grandson for mixing mortar, was thrown aside, allowed to be overgrown with grass, and after sixty years was resurrected, and found to be in a perfect state of preservation. It is somewhat remarkable that no systematic attempt has hitherto been made to utilize this knowledge; but recently a method has been brought forth in France, based on these facts, which is simple, cheap, effective, and requires no special apparatus. It is described by a contemporary as follows:—Pile the planks in a tank, and put over all a layer of quicklime, which should be gradually slackened with water. The time required depends on the thickness of the wood. Timber for mines will be thoroughly impregnated in about a week. The material is said to acquire remarkable consistency and hardness after this process.

The Big Trees.

The Secretary of the Interior in his annual report asks Congress to enact a law for the protection and preservation of the famous "big trees" of California. These trees, the giant redwood and the evergreen redwood, are found chiefly in two townships in the northern coast range, and a similar area in the southern part of the State, and they are not found of equal size anywhere else in the world. They are giants of growth, being 350 to 400 feet in height—and with a circumference in proportion; and they are as venerable as they are large, being at least a thousand years old. And yet they grow on public land subject to entry at $1.25 per acre, and may be bought up and destroyed by anyone who wishes to make such a use of them. They have excited the wonder of scientific men in this country and Europe, and our government has been asked repeatedly to take measures for preserving them. It is to be hoped that Congress will comply with Secretary Kirkwood's recommendations.

HAUNTED ME.—A Workingman says: Debt, poverty and suffering haunted me for years, caused by a sick family and large bills for doctoring, which did no good. I was completely discouraged until one year ago, by the advice of my postor, I procured Hop Bitters and commenced their use, and in one month we were all well, and none of us have been sick a day since; and I want to say to all poor men, you can keep your families well a year with Hop Bitters for less than one doctor's visit will cost."—*Christian Advocate.*

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zoyesa, Clergymen write us earnestly to its wonderful effects.

Chips.

OPERATORS in northwestern Wisconsin are building sun-shades over sections of their logging roads to save the little "slipping" there is on them. Sometimes these road sheds are half a mile long. There is no end to the lumberman's devices for banking logs in all weather, and under all conditions.

THE Buffalo *Lumber World* says it is stated that there are about 3,000,000 acres of excellent pine lands in Louisiana, which are beginning to attract northern attention, and Michigan parties have recently purchased 11,000 acres in Calcasieu parish, with a view to the manufacture of lumber. These lands are offered at $1.25 per acre, and a lumberman who smells pine land at that figure usually may be counted on to take up the trail. These southern pine lands will come into active demand much sooner than is generally expected, should the enormous requirements of lumber continue, and there is not much doubt on that score.

THE Chicago, Portage & Superior Railroad Company received a grant of 407,000 acres of pine land in northern Wisconsin for building its road. Sixty-four miles are already graded from Superior southward, and track laying will be soon begun. When this section of the road is completed the land grant will be fully acquired. Sixty miles of grade have been accomplished on the southern end of the line between Geneva lake and Jefferson. It is the intention to have the road completed and cars running between Chicago and Superior City, before the end of the present year. The opening of this route will develop a chain of lumber manufactories along its northern section, and induce speculation in the pine lands that the company will acquire by its completion.

THE Lafayette tree which stood in front of the city hall, Portland, was cut down recently by order of the Mayor. For many years the tree has been patched and painted, but the rot has now conquered it. The history of this old elm tree is interesting. The Marquis de Lafayette came to Portland on the 25th of June, 1825. A public reception was tendered to him, and was held under the branches of this tree. An awning was spread from the cornice of the old state house to this tree and another one above, which fell in the fire of 1866. Lafayette stood under this tree and shook hands with whoever saw fit to present himself. This was the only tree within the burned district of 1866 which survived the fire. It marks the eastern limit where any green thing can live.

THE Kingston *Whig* says that the advancement northward of the K. & P. R. is leading to the rapid development of the resources of the back country. Mr. W. C. Caldwell, M.P.P., of Lanark, arrived in the city lately and conferred with the President and Superintendent of the railway, arranging freight rates for which the lumber from a new mill which he has in course of erection at the Clyde River can be shipped to the States *via* Kingston. The new mill will be located alongside the railway, so that every advantage can be given the shipper. The mill will have a cutting capacity of 6,000,000 feet per year, and is to be ready for operation by the 15th of April. The logs from the timber limits will be floated down the Clyde river. The amount of freight that the railway will have to carry is daily increasing.

JOHN NEWTON is about to erect a saw mill at Lachute, Que., where he has secured an eligible site. This section of country contains an immense unbroken forest, which only requires an outlet to make it a source of wealth to its owners, a difficulty which Messrs. Newton, Charles Vary, and others, intend to overcome by the erection of a timber slide from the mouth of Lake Louisa to Lachute. A survey, with this end in view, has been carried on for some time, and, after tracing several available lines, one has been decided on which is almost a direct line between the points mentioned, and gives a splendid descent the whole way, with the exception of a short distance before reaching Lachute, which is rather level, but this difficulty will be overcome by staging, etc. When completed this slide will be a valuable accession to the province, and will open up a new source of supply for its lumber market.

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Market Reports.

TORONTO.

From our own Correspondent.

JAN. 10th.—In consequence of this being the holiday season, there is not much doing in the way of lumber sales, but the open weather has had the effect of causing large numbers of new buildings to be started, and there being so little frost in the ground, foundations can be laid and cellars taken out with small labor, compared with that of last season, and builders seem determined to take advantage of our present mild spell. Bill stuff by car load still tends upward, and the retailers begin to realize the fact that they will have to advance prices from their yards. It is strange that they could not have been satisfied upon this point long before this, and doubtless most of them will wonder now, as they begin to replenish their stocks at the advance demanded by mill men, that they could have been so blind as to deplete their stocks and hug the old figures, while the wholesale men were advancing rates from week to week, but it is the old story over again,—want of unity, and therefore common consent to advance prices on the part of the entire trade.

The question is now being mooted by the retailers as to the advisability of calling a meeting of the middlemen (to comprise all those who sell by car load on this market), and try to induce them to demand yard prices for car load lots. This is intended, of course, to throw the entire trade of consumers into the hands of the yard men; but now comes the question, What is the sop to be given the car load men in return. In the first place it is manifest that the retailers must bind themselves to purchase only from those who sell by carload here, and that would only be a small part of the compensation needed to recoup the wholesale dealer, as it is questionable if retailers could do any better by going up to the mills to purchase, especially if they count their time and travelling expenses. Then how will the retail men like to compensate the wholesaler for the difference in price obtained from the consumer, over that charged to the retailer, which would be from fifty cents on the lower grades, to two dollars per M. on the better class of lumber. I fear that the difficulties in the way of any such arrangements being come to are insuperable, and much the better plan would be for the retailers to combine with a will and determination to improve many matters in connection with their trade, which are immediately under their own cantrol.

Since the new year came in I have been endeavoring to ascertain the amount of lumber consumed in this city during the year 1881, and I find it extremely difficult to determine the quantity with any degree of certainty. It is comparatively an easy matter to give you the quantity brought here and intended for local consumption, but not so accurately can I determine the quantity transhipped to points east and west; however, after due consideration, I am led to the conclusion that upwards of 55,000,000 feet has been consumed in this city and the adjoining municipalities of Parkdale and Yorkville. In coming to this conclusion I estimate that the various yards throughout the city closed up the year with about the same stocks on hand as held by them at the beginning of the year, and in this surmise I think I am not far wrong, although the stock of joisting and scantling now on hand is much lighter than has been held here for some years past; but the deficiency in that respect is doubtless made up by other kinds of lumber.

Prices for car load lots of joisting and scantling up to 16 ft. lengths are fully $1 per M. better than obtained during the months of September and October, and the fact is, dimension stuff can scarcely be obtained at all, and I question if there is a single car load on track here to dispose of.

Cherry and other hardwoods have arrived more freely of late, but not sufficient to glut the market in any sense. Black ash obtains ready sale if the quality is good. This wood has been rapidly coming into favor as a finishing wood, whereas, a few years ago, it was only esteemed of value for barrel hoops and fence rails. It will now sell readily for $14 to $16 per M., and good white ash for $20 to $25, the latter figure if suitable for carriage work. In fact all kinds of lumber, hard or soft, if quality and manufacture are right, will command ready sale at fair figures.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	13 00
Scantling and joist, up to 16 ft	13 00
" " " 18 ft	13 50
" " " 20 ft	14 00
" " " 22 ft	13 50
" " " 24 ft	14 00
" " " 26 ft	15 50
Scantling and joist, up to 28 ft	16 50
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	35 00
Cutting up planks to dry	20 00
" boards "	18 00
Sound dressing stocks	16 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00
B. M.	
1½-inch flooring, dressed	30 00
1¼ " " rough	14 00
1¼ " " dressed	25 00
1¼ " " undressed	14 00
1 " " dressed	20 00
1 " " undressed	15 00
¾ Beaded Sheeting, dressed	20 00
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M	2 80@3 00
XX sawn shingles	2 75
Sawn Lath	1 80

LATER.

JAN. 24.—The present frosty spell has had the effect of slackening the demand for lumber on our local market, and the planing mills are also quiet, and in this connection I would remark that the excellent buildings and perfect machinery in use for sash and door factories in this city are far ahead of any other city in the Dominion, and in a future letter I will endeavor to give you a full description of the wood working machinery, and the different firms engaged in that branch of industry here. Referring to my last letter, and to the amount of lumber said to have been sold in this city during the season of 1881, I would say that probably 100,000 feet of that amount has been sold to farmers. There is now considerable trade done with farmers living from 5 to 20 miles from the city, as nearly all the small mills that once existed in the rural sections within that distance are now silent for want of the material once so plentiful.

Prices for all short bill stuff from the yards are now firm at $13 per M., but as the prospect for a fair supply of logs is now good, it is doubtful if prices now demanded for common lumber will hold longer than the spring.

The resolution formed by some of the retail men to force the middlemen into a position more favourable to the retailer, and to which I alluded in my last letter, seems to have fallen through, if indeed it was ever seriously entertained; and as the middlemen hold nearly all the dry stuff there is for sale here, they hold the key to the position, and it would be useless to attempt to force them into any position at all distasteful to them, so that we have likely heard about the last of the matter. All the yards hold light stocks, with no surplus of any kind so far as I have been able to judge, and there is no prospect of any large quantity of any particular kind of lumber being forced upon the market this winter, and wholesale men are firm in their prices for all kinds of stock held by them.

OTTAWA.

From Our Own Correspondent.

JAN. 10th.—Lumbermen in the Ottawa Valley, as well as the general community, has great reason to complain of the unbroken weather which has almost continually prevailed during what should have been winter months, but a recent arctic wave has somewhat revived their drooping spirits. Since sleighing has set in the past few days hundreds of men and teams are flocking to the woods. Agents have been eagerly at work looking in all directions for hands, and the supply is said to be far from equal to the demand. This week may virtually be called the opening of the season's operations, for, up to the present, work in the woods has been carried on upon a rather small scale only. However, the actual number of men now engaged in taking out timber on the Upper Ottawa limits is said to be larger than at any time last year. This is accounted for by the increased number of log jobbers operating this year, and also the good prospects entertained for next season's demand, which promises to be unprecedented in the timber history of this locality.

ON THE UPPER OTTAWA.

Snow has fallen in sufficient quantities to facilitate the taking out of logs, but not on a scale desirable. The principal firms here operating are Allan Grant (Scotch Canadian Lumbering Co.), Gilmour & Co., Oliver Latour, David Moore, Sherman, Lord & Hurdman, Bryson, Edwards & Co., Booth & Gordon, and J. & M. Grier. On the Temiscamingue Lake those actively operating are R. Ryan, Bell & Hickey, W. B. Latour, Allan Grant, and Fraser & Screeney. The foregoing firms will only engage in taking out logs.

ESTIMATE OF THE CUT OF 1881-2.

The following is a pretty correct estimate of the quantity of timber that will be manufactured this season on the limits of the firms mentioned :—

	White Pine, ft.	*Board Timber, ft.*
J. & G. Bryson	90,000	20,000
J. R. Booth	300,000	100,000
R. & W. Conroy	175,000	40,000
Oliver Latour	275,000	60,000
Wm. Mackey	200,000	
David Moore	380,000	40,000
Richard Nagle	85,000	65,000

If no serious obstacles are encountered, such as the low water of last summer, in bringing the logs to the mills, everything indicates a busy time next season at the Chaudiere, and at other mills in the surrounding vicinity.

ON THE GATINEAU.

Operations are here carried on as usual in other seasons. Logs taken out on this river generally reach their destination in the spring, the drive not being as long as on the Ottawa. The following firms have limits on the Gatineau, and the estimate of what they will manufacture this season is subjoined :—

	Logs.	*Timber.*	*Spars.*
McLaren & Co	23,467	1,671	750
Gilmour & Co	39,913	1,253	35
Edwards & Co	52,058	4,125	9
Hamilton Bros	54,514	7,721	
Hall & Co	245,483	1,319	
	415,435	16,089	794

CHIPS.

A boat is being built at present by a company, that will be used for towing and moving freight in Kippewa Lake.

A new mill is being built on the C. P. R., west of Pembroke, by Mr. James Findlay.

A. & P. White are also building a saw mill on their limit at Deux Rivieres, on the C. P. R.

In a log shanty on the Keepawa three men recently cut in one day 230 logs, one-half of that number being 16½ feet long, and averaging 16½ inches. In the same shanty three square timber makers made in one day seventeen pieces. This is hard to beat.

Messrs. Walker & Mills, who purchased White's mill at Pembroke, will make things boom next summer. The gangs at the shanties of the firm on Indian and Chalk rivers have so far this winter put 30,000 logs on the roll-ways.

LATER.

JAN. 23rd.—All commercial industries generally have a quiet spell at a certain time of the year, and as regards the headquarters of the lumber trade of the Ottawa Valley, that lull prevails at present. The many concerns centered here have their shanties on the Upper Ottawa in full blast, operations being carried on to the fullest extent. All the hands required, or, at least, as many as could be engaged, have been despatched to the woods, and nothing now remains but to anxiously await the breaking up of the shanties in the spring, and the sending up of men for to engage in

THE DRIVES.

Fears previously entertained of an insufficiency of snow for the successful carrying on of operations have now been dispelled, there being an ample supply of "the beautiful" to facilitate operations. Although there was an unusually late beginning this winter of shanty work, a prominent lumberman informs your correspondent that the cut which will be taken out from the present till the end of the season will be as large, if not larger, on the whole, than for a number of years back. More sanguine hopes are entertained that the logs and square timber that will be taken out, and also that which was stuck last season in the streams, owing to the extreme low water, will all be safely brought to their destination, as a result of the great and

VALUABLE IMPROVEMENTS

that are being made this winter by the Upper Ottawa Improvement Co., and also by private individuals. As an evidence of the prosperous condition of the trade, but more especially of the hopes entertained, may be be mentioned the boat building operations that are at present being carried on. Seales & Murphy, of Pembroke, owners of the steamers *O'Kelly*, *Baldwin*, *Pembroke* and *Sir John Young*, are building four new steam tugs for towing purposes next summer, between Portage du Fort and the Chats Lake. The Square Timber Co. are also constructing a new steam tug on the Temiscamingue. New tugs are also being built for the Upper Ottawa Boom Co. and Mr. O. Latour. The latter will ply on the Kippewa.

QUOTATIONS

remain firm, and few sales are reported. Stocks are getting low, consequent upon the steady railway shipment to the States, for the fulfillment of orders already contracted for. A number of the largest lumbermen here, and in fact all, are taking considerable interest in the proposed Canada Atlantic R. R., which will, when constructed, be of great value to the trade of the Ottawa Valley, affording better facilities for shipment to the States. Mr. G. W. Perley, of the firm of Perley & Pattee, is one of the principal stockholders, and being an active and enterprising gentleman, his interesting himself in the scheme carries with it a guarantee of the early completion of the road.

SAW MILL IMPROVEMENTS

this winter are being carried on upon a much larger scale than in former seasons, in some instances extensive and costly improvements are being made. It is the intention of a number of establishments to adopt the electric light next season, as it was such a signal success with those who tried it the past summer.

SAWDUST.

Four men in one of J. R. Booth's shanties on the Opeongo river made in one day recently 306 saw logs, averaging 16 inches. This is big work.

Lumbermen fear a scarcity of men next season.

MONTREAL.

From Our Own Correspondent.

JAN. 24th.—Since the date of our last repor the only subject of interest to the trade which has taken place is the suspension of the well known firm in the lumber trade here, Messrs. McGauvran & Tucker. The cause of the stoppage is said to be the want of floating capital, so much of the money belonging to the firm being locked up in real estate, said to be worth about $160,000. Liabilities about $217,000, but very little of this is said to be due for lumber. This firm failed and made a compromise with their creditors about two years ago. We have not yet been able to learn whether they will resume operations again or not.

The violent storms with snow which we have had lately have caused the demand for lumber to be very slack. It is rather early yet for Americans to come round to see what can be picked up, but there has been a few, and now that sleighing is good, a large number is looked for in the course of 10 days or so. Lumber operations in this region are progressing favorably, with plenty of snow to get it drawn out. It is fully expected that prices of all kinds of lumber will shortly be advanced, and to-day we note an advance in the price of lath, but in the meantime our other figures are unchanged. We quote :—

Pine, 1st quality, ₱ M	$32 00@40 00
Pine, 2nd " ₱ M	18 00@24 00
Pine, shipping culls, ₱ M	12 00@15 00
Pine, cull deals, ₱ M	8 00@12 00
Pine, mill culls, ₱ M	5 00@ 8 00
Spruce, ₱ M	8 00@10 00
Hemlock, ₱ M	8 00@10 00
Ash, run of long culls out, ₱ M	16 00@18 00
Bass, " " ₱ M	14 00@16 00
Oak, ₱ M	35 00@45 00
Birch, ₱ M	17 00@20 00
Hard Maple, ₱ M	18 00@25 00
Lath, ₱ M	1 50@ 0 00
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

CORDWOOD.—Trade has been very slack until the last few days, when a good demand has sprung up, which the present very severe cold weather will help to develop. There is not much green wood coming in to the depot, dry wood, however, is arriving in fair quantities. We have no change to make in our quotations,

but the probabilities are that lower prices will soon prevail, We quote prices at the railway depot, ex cartage :—

Long Maple	$6 50
Short "	6 00
Long Birch	6 00
Short "	5 50
Long Beech	5 50
Short "	5 00
Long Tamarack	4 50
Short "	4 00

LONDON, ONT.

From Our Own Correspondent.

JAN. 25.—Your last issue of Jan. 16th did not contain a letter from me in consequence of my absence in Montreal. Since mine dated Dec. 22nd, a marked change has taken place in the lumber market here. Some time ago the merchants held a meeting to consider the advisability of advancing prices as a necessary result of scarcity and diminishing stocks, with little prospects of replenishing, and the result of this meeting was that prices were advanced about one dollar all round. Business cannot by any means be called brisk, in fact a quiet feeling prevails, but notwithstanding all this, prices are maintained firm. All stocks from the base of supplies are getting very low. Sarnia market has been higher for a considerable time, and Goderich has also advanced; both of these places are supply markets for much of the lumber coming here.

The lumber contract for the new wholesale block has been let to Messrs. Green, and building is proceeding.

Unless we have a good, long spell of cold weather, and an abundance of snow, such as we now have, prices are not likely to show any decline.

I intended giving you a data of our lumber market for the past year in this letter, but will have to defer it, and if possible give it in my next.

The prices ruling at present are :—

QUOTATIONS.

Mill cull boards and scantling	$11 00
Shipping cull boards, promiscuous widths	12 00
" " 10 and 12 in. stocks	12 50
Common boards, promiscuous widths	14 00
Scantling and joist, up to 16 ft	15 00
" " " 18 ft	15 50
" " " 20 ft	16 50
" " " 22 ft	17 50
" " " 24 ft	19 00
Common stocks	15 00
Common 2 in. plank	14 00
Cutting up plank and boards	19 00
Sound dressing stocks	18 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	21 00
¼ " " " "	21 00
1 " " " "	21 00
XXX sawn shingles, ₱ M	3 00
Lath per 1000 feet	4 50@5 00

BRACEBRIDGE.

From our own Correspondent.

BRACEBRIDGE, Jan. 19th, 1882.—Since my last things have changed some; we have now about six inches of snow with plenty of frost, and the hauling could not be much better. Every one is rushing in teams, and no doubt there will be a large quantity of logs and timber hauled this month. Teams have been very scarce and wages high, $1.75 to $2.00 per day, and the demand is not more than half satisfied yet; but they are coming in now. David Moore, from Walkerton, went in this week to commence operations in the township of McKonkey, on French River, on one of the berths sold at the recent sale. He will build a mill at the mouth of the French River in the spring. I believe that he is the only operator so far in that portion of the recent sale. I noticed an article in your last by Mr. Little. He is evidently writing about what he knows nothing. There is no fear of the lumber supply being exhausted in twenty years, nor in forty. He says that the Government three years ago sold 34 townships, the last they possessed. How does it come that last December they again sold 18 townships, and they have plenty to sell yet? The north shores of lakes Huron and Superior have been very little worked yet, and it is principally a pine country, except where the fires have destroyed it. There is no use trying to mislead; we have plenty of timber.

ST. JOHN, N. B.

From Our Own Correspondent.

JAN. 21.—From the very nature of things we cannot expect to have much to record in making up a lumber report at a shipping port in the latter part of January. The most noticeable circumstance we have to report at the present time is that we have had several snow falls recently, which were greatly needed. The snow being now of moderate depth, and having fallen very evenly, the facilities for teaming in all directions are all that can be desired, causing a very agreeable change in the movements of all winter occupations.

OUR HARBOR.

Doubtless some of the readers of the LUMBERMAN are not aware that the harbor of St. John is *never obstructed by ice in the least degree*, which is more than can be said of any other harbor on the Atlantic coast, from Baltimore to the North Pole,—we do not say "both inclusive," as our knowledge of the latter place is rather too limited to enable us to speak authoritatively so far as it is concerned,—the open water extending some two miles up the river. This circumstance is a very important one as bearing upon the question of a winter port, now being agitated throughout the Dominion.

Another very important peculiarity of our harbor is the great rise and fall of tide (between twenty and thirty feet), which could be extensively utilized in the shipment of grain cargoes, dispensing with elevators, if not altogether, at least with any such structures at all approaching the magnitude of those required in other places.

We would earnestly press these features of our harbor upon the consideration of the Government, the C. P. R. Company,—of all people in Canada, indeed,—in discussing the subject of a Canadian winter port, in connection with the trade of our great North West, which is now a burning question. Any manifestation on the part of the "powers that be" in favor of a foreign port in this connection would cause a commotion in these Maritime Provinces not easily allayed.

FREIGHTS.

The freight market is easier, the latest transaction being at 60s. for Dublin, or a port on the west coast of England. Very few transactions in deal charters may be looked for during the next two months.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	2,295,000	Sup. feet.
" Africa	1,188,000	"
" Australia	637,000	"
" United States	1,353,000	"
" West Indies	579,000	"

The number of sugar box shooks shipped for Cuba is as follows :—

Sept. 1 to Jan. 5	46,745
Since	7,000
Total	53,745

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Etta Stewart, 787, Liverpool.
Souvenir, 828, Liverpool.
Gettysburg, 1,015, Adelaide, for orders.
Templar, 778, Liverpool, Barrow or Bristol Channel.
Torryburn, 447, Jamaica.
Memory, 409, Spain.
Athlow, 839, Bristol Channel.
Themis, 975, Liverpool, Barrow, Bristol Channel or Dublin.

BOSTON.

JAN. 21.—The *Journal of Commerce* says the market is still a very good one, and remarkably so for this time of year. Holders of stock are masters of the situation and name their own prices in every case. Arrivals are now beginning to be less frequent, and stocks (especially of the finer grades) are getting pretty low in most of the yards. Dealers at productive points are refusing future contracts, except at advanced rates. At the west there is quite a scarcity of dimension stock in flooring strips. In Chicago it is not an uncommon occurrence for sales of 100,000 feet in one lot to be made at regular list prices. The general opinion seems to be that the price of lumber will materially advance by the coming of spring, if not before. It is a well known fact that the supply to draw from has never been lower than at present, and that the amount of stock on hand in most of the yards is small. When these facts are considered it is plain that they point pretty strongly to higher prices, and dealers are making money if they hold on to their lumber. Hardwoods are as firm as ever, with indications of an improved demand in the spring.

ACADIA FOUNDRY.
I. MATHESON & Co ENGINEERS & BOILER MAKERS, NEW GLASGOW, N.S.

1L17

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

ALBANY.

JAN. 20.—Quotations at the yards are as follows :—

Pine, clear, ₱ M	$53 00@63 00
Pine, fourths	48 00@58 00
Pine, selects	43 00@53 00
Pine, good box	19 00@31 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in	00 26@00 28
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@18 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M	35 00@40 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@70 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 00

CHICAGO.

JAN. 18.—The stiffening of the weather, and the resulting improvement of the roads in the country, has had an effect on trade, and a considerable increase in orders and movement of lumber is noticeable, the shipments for the last week exceeding those of the preceding one by about 1,000,000. This may be taken as an indication of a coming improvement of considerable proportions, if the weather continues favorable. The facts that generally stocks in country yards are low, and that country dealers report a very satisfactory trade for the time of year, go to encourage wholesale holders of lumber to hope that February will be a good month for business.

The feeling in regard to prices was never stronger. Holders of lumber are not forcing sales, but are content to let trade take its course. The prevailing opinion is that lumber is making a profit as it lies in the pile, and it is sufficient to sell it when it is called for, without using any urgency.

Receipts and shipments of lumber and shingles for the week ending January 19, 1882 :

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	3,958,000	1,630,000	18,644,000	7,010,000
1881	4,962,000	1,405,000	13,371,000	7,512,000

Receipts and shipments of lumber and shingles from January 1 to January 19, 1882, inclusive :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	10,440,000	3,615,000	40,378,000	7,010,000
1881	10,353,000	3,470,000	36,274,000	20,292,000

The receipts for the season also embraced 104,499,000 lath, 2,846,340 cedar posts, 3,205,560 railroad ties, 33,055 cords of wood, 22,549 cords of slabs, 29,702 cords of tan bark, 86,993 telegrapu poles, and 25,118 piles.

STOCK ON HAND JANUARY 1.

	1882.	1881.	1880.
Lumber	560,416,842	497,840,673	451,282,059
Shingles	260,906,494	188,722,000	190,057,000
Lath	48,820,438	50,321,185	48,630,800
Pickets	3,784,178	2,497,858	2,129,760
Cedar posts	229,012	63,659	404,730

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$40 00@45 00
Common	17 50@20 00
Culls	11 50@12 50

LEATHER BELTING.

Chipman, Renaud & Co.

MANUFACTURERS OF

LEATHER BELTING,

FIRE ENGINE HOSE

LACE LEATHER, &c.

124 & 126 Queen St.

MONTREAL

ROBERT W. LOWE,

AUCTIONEER AND COMMISSION MERCHANT

81 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. ☞No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

1L17 SAINT JOHN, NEW BRUNSWICK.

ROBIN & SADLER

594, 596, 598, St. Joseph St.

MONTREAL

Manufacturers of

LEATHER BELTING

Fire-Engine HOSE,

Lace Leather,

Mill Supplies, &c.

1L13

Wrought Iron Shanty Cook Stoves

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use.** These Stoves are made of **Heavy Sheet Iron,** the top and lining of the fire-box being of **Heauy Cast Metal** and all the connecting parts of substantial **Wrought Iron Work.** The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 24 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business.

Very truly yours, GEO. HILLIARD, M.P.

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BOILER FEED PUMPS,
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PUMPS SPECIALLY ADAPTED for
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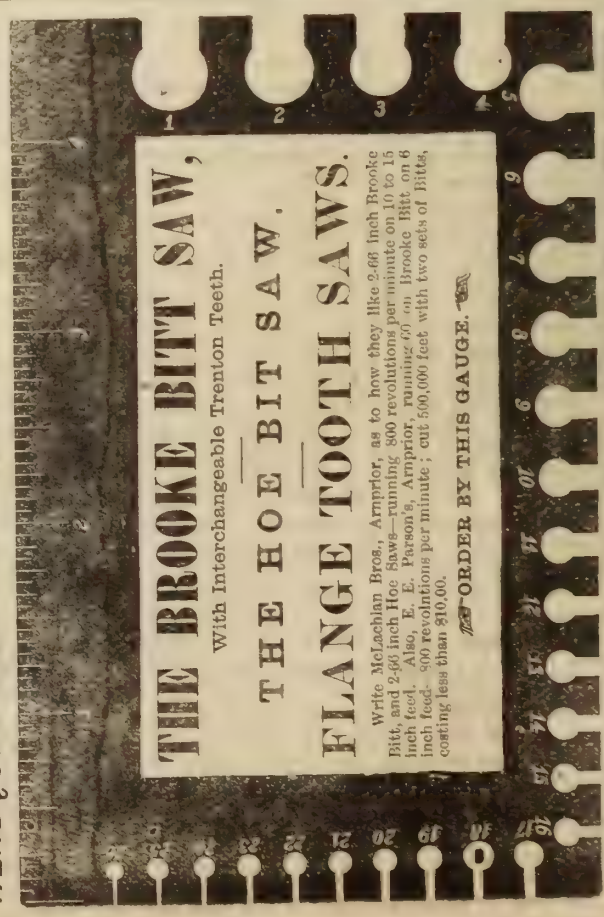
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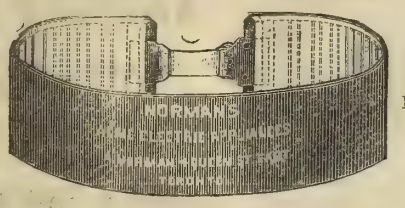

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Dear Sir,—Please send me a waist belt. Enclosed find price. Head band I got for my wife has almost cured her of neuralgia. Yours truly, C. L. TILLEY.

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We watch the interest of our Customers. Our stock is FULL of the very best goods in Scotch, English and Canadian Tweeds.

We BUY and SELL for Cash, therefore it enables us to do business on very SMALL PROFITS.

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NOISELESS ROLLER MILL

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Every Mill a Success!

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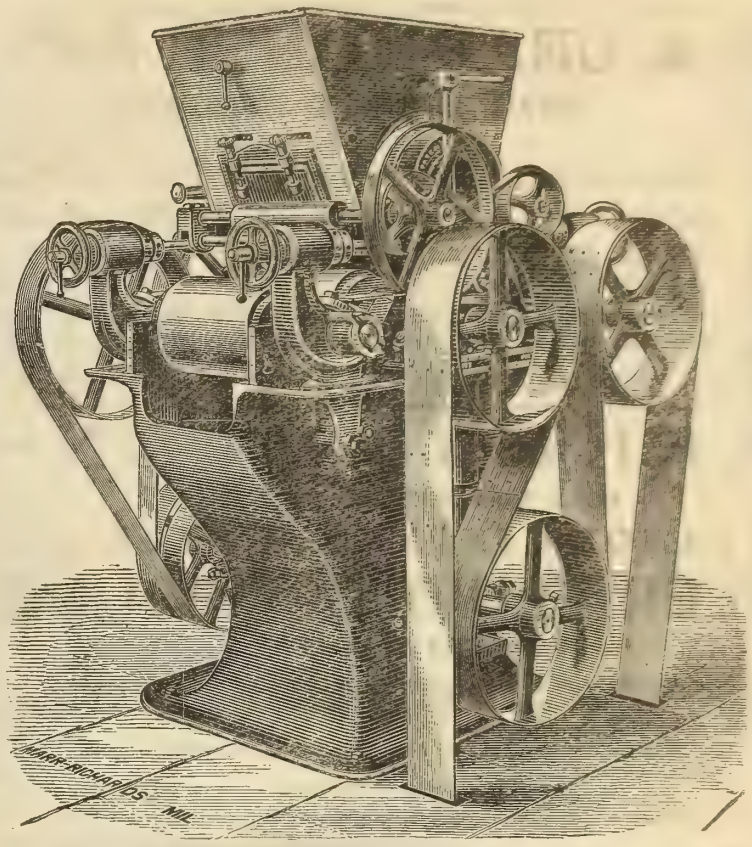

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The Machine is Perfect in all its adjustments, and RUNS WITHOUT NOISE.

It is doing Better Work than any other Machine in use.
Automatic Lubrication of Principal Bearings.
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Differential Speed always insured.

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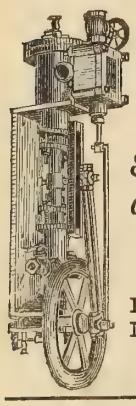

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BOILER FLUID COMPOUND.

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This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

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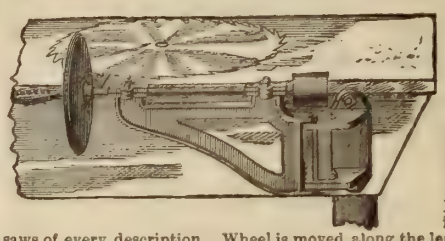

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Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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Alexandria Saw Works

SAINT JOHN, N.B.

Saws of all kinds manufactured from the BEST CAST STEEL that can be procured in any Market.

EVERY SAW WARRANTED.

SAWS REPAIRED in the best manner and on Short Notice.

Send Address for Price List, Terms, &c.

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Men's Flannel Shirts and Durable Underclothing.

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HAMILTON, CANADA.

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MANUFACTURERS OF THE CELEBRATED

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EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERTSON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

EMERY WHEELS FOR SAW GUMMING!

EX INUTILI TRADE TANITE MARK UTILITAS

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ⅜ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ⅜ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } ⅜, ⅞ and 1 inch. Holes,

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1tf

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CNADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

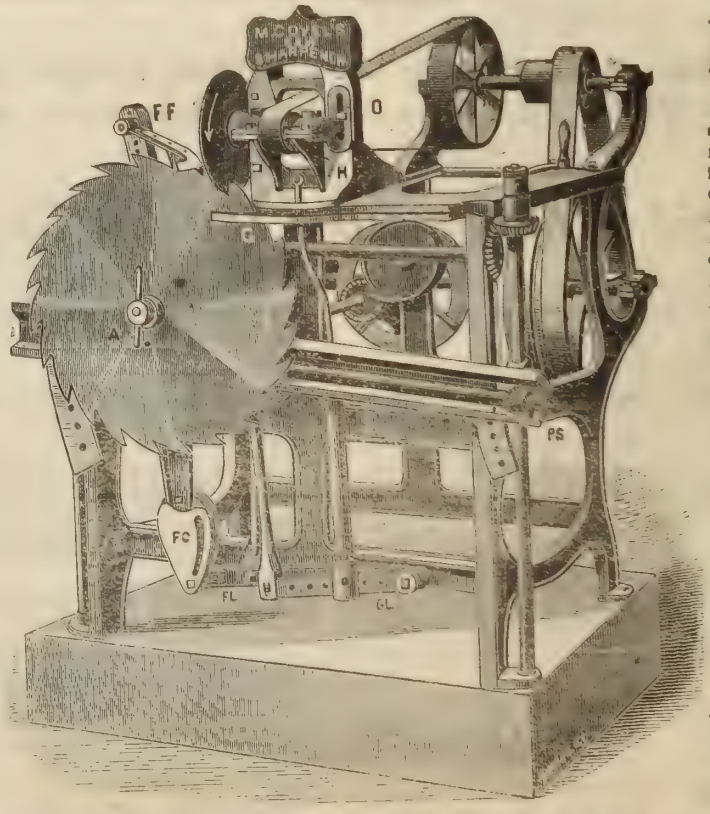
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



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I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

Horizontal Engines and Boilers

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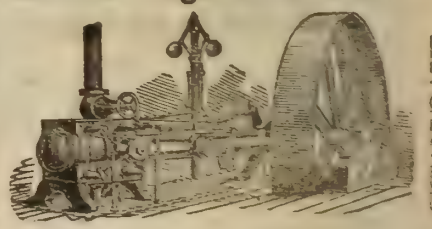

Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1tf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM

VOL. 2. **PETERBOROUGH, ONT., FEBRUARY 15, 1882.** **NO. 4.**

THE SAW MILL CHANGES OF A CENTURY.

Among the most marvellous of the many wonderful things which distinguish the United States from other nations, are the results which have grown out of the possession of immense forests of valuable timber, in stimulating inventive genius to the preparation of an article of building material so cheap as to enable the poorest to have a comfortable home, while at the same time so excellent in character as to be not only suited, but indispensable, to the working classes. Those more readily accessible regions of the continent which possessed these forest growths in the greatest abundance were among the first to receive large accessions to their population, drawn together at those centres which presented the easiest access to cheap building material, not less than for their personal safety from a savage foe. It was not until the demand for lumber far exceeded the ability of the "greatest" mills of a half century ago to supply, leading the manufacturers to feel the need of a more extended system of production, that the star of empire made any progress westward, or it became a possibility to settle on the prairies of the West, or to develop the mineral resources which have already shown our nation to be the peer of, if it does not excel, all others in the extent of its possessions. To possess is to need. And the cheap building material which the cheap mills of the days long gone by enabled a scanty population to utilize, stimulated a more extended immigration, with its increased needs, as well as a higher order of genius to increase the supply.

The mills of the olden time were, first, the windmill, with its uncertain power, scarce exceeding that of the men who ran the pit saws, which were then in a measure superseded, and whose indignation at the effort to lessen their manual labor caused them to mob the owner and tear down his machinery. Second, the adoption of a current water-wheel of scarcely greater power, if more reliable, run by the natural current of a small stream. Next came the simple flutter-wheel, to impart motion to which required the building of dams to hold large bodies of water, which would at all times be available. But for large operations the flutter-wheel was found to possess too little power, and the overshot or undershot wheel became a necessity, to be superseded later by the adaption of turbine-wheels, now so much in favor with mill owners who control water power. For the first fifty years of our national growth as well as during the preceding portion of the world's history, none of the mills were equipped with anything more than a single upright saw working in a gate, and when another saw was added, as the inceptive idea of the gang, which quickly succeeded with its large number of saws, words could scarcely express the astonishment of all who saw the working of the bold innovation.

Up to this time, all the lumber which was manufactured had been edged upon the top of the log after it was turned down; an auxiliary saw was not thought of, for the buzz saw, just beginning to be used, was considered a most dangerous piece of machinery. But the increased manufacture growing out of an increase in the power and an increase in the number of saws, led to the introduction of the small circular or "buzz" saw, which was at once found to nearly double the capacity of the mill. It is needless for us to enlarge upon the introduction of steam power into the saw mill, or to follow the original idea of an engine, 6x8 inches, attached to the lower end of the pitman or saw gate, through its successive stages of development and enlargement to the present time, when the Corliss, or Estes, or other well known engines, of a power from ten to one hundred times greater capacity than was the original device, are by the thousand in number engaged in turning out lumber, each in one season aggregating a greater manufacture than were all the saw mills of the country combined at a period scarcely fifty years in the past.

The old gate saw was superseded by the mulay, with a reduction of friction equal to thirty or fifty per cent. increase in cutting capacity. The mulay gave way to the circular, and with its introduction may be dated the commencement of an era which has been prolific of innovation, improvement, and advantage to the saw mill world. As the use of the circular became better understood, and men became more expert in dressing it as to make true lines and smooth surfaces, they found themselves able to produce more lumber in the rough than they could properly edge and prepare for market. The old edging-table could not keep up with the cut of the saw. This was remedied by the introduction of gang-edgers, which no mill doing any considerable business could dispense with. Now the work of the main saw could be safely increased, for the gang—or, as it was at first known, "double"—edger was abundantly able to keep pace with it, and while at first a capacity equal to 1,000 feet per hour was doubtfully claimed, later developments have shown in not a few instances an entire season's work at the rate of 6,000 feet per hour.

This increase in capacity called for a more speedy method of handling the logs on the carriage, and the lumber as it left the saw, and a multitude of inventive minds were concentrated on mill dogs, which should successfully take the place of the lever and pike, driven by a mallet, and the modern saw mill could not now be operated with the original method of dogging the log. The "nigger," for turning the log on the carriage, as well as rolling it on the skids, has superseded the cant-hook and muscular power formerly relied upon, while the lumber, as it leaves the saw, drops upon a system of live rollers, which does the work to much better advantage than it was formerly accomplished by a hard-worked "off-bearer," who could not in these days by any possibility keep up with the work which would crowd upon him.

Plenty of lumber, cheaply manufactured, and sold at reasonable prices, has enabled the settling up of a nation at the rate of nearly fifty per cent. increase of population during each decade. This in turn demanded a network of railroads, and carriage by them has not yet been reduced to a science, which enables us to believe that rates have reached a minimum which they will realize in the future. The manufacturer of lumber, bearing this in mind, must reduce the weight of his product to the lowest possible point, and the trimmer became a prime necessity as an economizer, not less than for advantage in an æsthetic point of view. And the old gang mill, from its original adaptation of two saws, hung in a cumbrous frame, upon monstrous posts which headed in a weigh beam, made from the largest stick of timber which the forests afforded, and footed in the mill foundations, shaking the structure and the surrounding country, and keeping the machinery about one-half the time in the repair shop from its everlasting jar, has been displaced by the neat, effective, and comparatively noiseless devices of more modern times, developing a sawing capacity of which the fondest anticipation of the original inventor of the idea had not the remotest conception. The heavy-weigh beams have disappeared, the monstrous wooden posts have given way to equally advantageous and strong but less cumbersome and more sightly iron supports, resting upon foundations independent of those which support the mill frame. The old, stiff, and full-of-friction gate has been superseded by oscillating slides, giving to the saws the same motion which the pit sawyer seeks to obtain in order to accomplish the most work with the least outlay of strength.

Time would fail us to trace out all the changes which a quarter of a century has developed in the saw mill. Should a Rip Van Winkle of the last century be suddenly awakened from his long sleep, still dreaming of the last act of dogging the log on his old-fashioned carriage, in the old mill, when he took long naps between the cuts, and esteemed a production of 1,000 feet per day something to brag of, and open his eyes on the floor of a modern mill of the smallest size, he would truly think that the world had turned upside down, and if he saw the army of men carrying off a quarter of a million feet of boards per day from the saws of some of the larger mills, he would not believe the evidence of his senses. All has changed; the water-wheel has given place to the steam engine; the single small cylinder boiler, to the monstrous tubular or flue in large batteries; the upright saws in a gate, to the mulay and the circular; the two-saw gang, to a forty-saw; the rag-wheel, to the steam feed, adding countless possibilities to the ability of the circular saw to cut up logs; the single buzz saw, to the double-edger; the rough end lumber to the well-trimmed; the vast piles of worthless slabs, to a useful article of lath and pickets; and the final debris, in many localities, to usefulness in the manufacture of other commercial articles. The pioneer knew nothing of lath and shingle manufacture; live rolls had not entered his noddle; gang slab cutters would have been pronounced by him an invention of the devil to feed the flames of his insatiable furnace. Endless chains would have no use in his mill economy; saw sharpeners and gummers would have no value in his eyes, for he could cut all the lumber he expected to, and find plenty of time for dressing his saws by hand.

The modern saw mill is indeed full of improvements, down to the last device for sorting by machinery. The production in one day, by one saw, of more lumber than was accounted the work of a year in former times, is not only the result of the genius of invention such as marks the spirit of the age, but has rendered possible the remarkable development of the youngest in the sisterhood of nations, forming no unimportant factor in the influence of this country among the people of the earth. All hail to the modern saw mill, and the wise intelligence of nearly every man who is connected with it, either in the production of logs from the forests or the manufacture and sale of lumber, for each progressive step in the march of improvement has reduced the cost of manufacturing lumber, keeping pace with the inevitable increase in the cost of timber, due to the gradual decadence of forests!—*Northwestern Lumberman.*

MICHIGAN BUSH FIRES.

DETROIT, Feb. 1.—A meeting of the State Fire Relief Commissioners was held here yesterday, at which Governor Jerome and a number of gentlemen from different parts of the burnt district were present. The Governor stated he had received many communications asking that a special session of the Legislature might be convened for the purpose of granting aid to the fire sufferers. After a long discussion as to the wants of the people a memorial, extensively signed, was adopted urging the Governor to call a special meeting of the Legislature as requested. The Governor subsequently urged on the members the necessity of preparing full, comprehensive, and correct reports of the necessities of their respective districts for submission to the Legislature, so that that body, if called together, can act intelligently and without delay. The meeting then adjourned. From reports submitted by the agents of the Commission, the assistant secretary compiled the following statement of the loss incurred by the fire:—Number of houses burned, 1,464; number of barns burned, 1,516; number of persons, 13,995. Total loss, $2,251,564; average loss per family, $732.

OUR QUEBEC LETTER.

THE HALL ESTATE—A LAND DISPUTE—INCREASED COST OF MANUFACTURING TIMBER—IN THE BUSH—HIGHER PRICES—MINING NOTES.

From Our Own Correspondent.

QUEBEC, Feb. 8th.—A rumour which proves to be a canard has been in circulation for some time past, to the effect that the estate of the late G. B. Hall, including the mills, etc., at Montmorenci, and limits elsewhere, were about to be disposed of to a company for the sum of $2,000,000.

A dispute is now in progress with respect to the timber upon a large tract of land recently secured from the Crown Lands Department of Quebec, by the English Colonization Society, of which Lord Dunmore is President. The land in question is a portion of that under license to Messrs. G. B. Hall & Co. for lumbering purposes, and this firm assumes therefore that the usual conditions of lumbering licenses had not been effected by the consent of the Department to grant the land for colonization purposes. Their contention is therefore that they have the same right as heretofore to cut timber over the limits in question, with the exception of those parcels of it allotted to actual settlers for a year past. The Colonization Company on the other hand affect to believe that in virtue of the Hon. Commissioner's decision to grant the land as it may be required for settlement, they have become actual proprietors, not only of the land, but of all the timber standing upon it. Hence a dispute which has recently occupied the attention of the Lieutenant-Governor-in-Council. Some time ago the Company caused a lumberman in the employ of Messrs. G. B. Hall & Co. to be arrested for robbery, because he was found cutting timber on the land in question. The case was dismissed, and later a writ of injunction against the firm was applied for. The whole case was argued a day or two since before the Lieutenant-Governor-in-Council.

Logging, which was for so long a time delayed in the early part of the winter, through the absence of the necessary snow, is now by all accounts vigorously prosecuted. Last week's thaw caused very bad roads in the bush in portions of the Eastern Townships, but subsequent snow storms must have remedied this condition of affairs very materiallly.

Manufacturers complain that the cost of making timber has very materially increased this winter in consequence of the higher cost of provisions, and of the increase in wages and Government charges.

Advices received here by last mail from England confirm previous reports as to the scarcity of stocks and increase in prices on the other side of the Atlantic. Holders in this city, in consequence, are not apparently anxious to sell, and manufacturers prefer not to enter into any immediate contracts for future delivery. Several offers for the cut of deals at mills in this district have been refused. I have been unable to obtain the prices offered.

A quantity of manufactured lumber for special building purposes, a portion of the yield of the Montmorenci Mills, has been sold in New York at a considerable advance on last year's prices.

As there have been no transactions for so long a time, it is difficult to give quotations. From enquiries made of several brokers, however, I have reason to believe that the following may be regarded as approximate:—

Waney white pine, 19 in. average.....	$00 00@00 38
Square " 50 ft. av'ge, 15 in...	00 30@00 31
Oak, 60 ft. average.....	00 00@00 50
Elm, 45 to 50 ft.....	00 00@00 30
Ash, 14 inches and up.....	00 28@00 30

A meeting will be held here to-morrow of the promoters of the new Asbestos Manufacturing Co. The directors will be selected, four from the Quebec shareholders, and three from those in Boston. The capital is $500,000, and the factory, which will employ about 100 hands, will be erected either at Quebec or Lewis. This Company owns the celebrated Ward Asbestos Mine at Thetford, Megantic.

LIVERPOOL.

The *Timber Trades Journal* says:—It may be as well to contrast the present position of the stocks held here now with what they were last year at the same time, leaving out pitch pine, which will be referred to later on, and we find that the whole of the stock of square timber is only 1,589,000 cubic feet, as against 2,516,000 cubic feet last year, or, to put it briefly, nearly 1,000,000 cubic feet less.

This great shortage is mainly accounted for in the deficiency of three or four articles, viz., Quebec yellow pine, oak, birch, and Baltic fir timber. The unsatisfactory condition of trade at the opening of the year made buyers reluctant to enter into contracts; hence the importations of these goods have been comparatively small, and this has had the beneficial effect of lightening many of the old stocks, and bringing them into their present moderate dimensions.

In sawn goods, deals, battens, boards, &c., we find a similar reduction compared with last year's stock; thus at the end of 1881 the total stock of all kinds was 29,659 standards, while at the end of the preceding year it was 53,664 standards, showing here a reduction in stock of not less than 24,005 standards, or nearly one-half, so that, even taking the present quiet state of the trade into consideration, the outlook is hopeful from a seller's point of view, especially as the weather in the various provinces in Canada continues to be from the most recent advices of an almost unprecedented character, little snow having fallen and the task of getting out logs in the forests being thereby hampered to a large extent. In addition to all this there is the increased cost of provisions, and the advance in wages which have now to be paid to the lumbermen.

These facts all point towards an advance in prices upon those now current, and buyers must be prepared to pay prices for Canadian goods which a couple of years ago would have appeared absurd. Owing to the causes referred to above, there is a very strongly marked decline in the extent of the importation of wood goods into Liverpool and the other ports in the Mersey, the tonnage employed only amounting to about 360,000 tons in 1881, as compared with 485,000 tons in 1880, 326,000 tons in 1879, and 373,000 tons in 1878. This 360,000 tons is distributed amongst the great timber shipping districts as follows:—Quebec and Montreal, 83,000 tons; St. John, N. B., 70,000 tons; Miramichi and other spruce deal shipping ports, 81,000 tons; pitch pine ports, 68,000 tons; and the Baltic, White Sea ports, etc., 59,000 tons.

With this moderate importation merchants have not experienced the effects of over-crowded quays to the extent that has been the case in former years, and which has caused so much loss and expense in endeavoring to keep the vessels discharging without incurring the cost of demurrage. This, in some measure, was owing to the use made of part of the system of new docks opened during the past summer, which may sometimes afford relief to the ordinary timber docks, when any occasions of emergency present themselves, though it would be unwise to assume that any regular accommodation will be given to the timber trade, as these magnificent constructions are intended chiefly for the use of the great transatlantic lines of steamers plying from this port.

The import of Canadian yellow pine timber from Quebec for the past year was 29,634 logs, as against 48,147 in 1880, 25,253 logs in 1879, and 25,100 logs in 1878; and from St. John, N. B., only 1,140 logs, compared with 2,228 logs in 1880, and 2,631 logs in 1879. This is about an average quantity of Quebec wood, but so far as as the St. John, N.B., pine timber is affected it shows a steady decline, which is owing solely to the ever-increasing scarcity of this favourite wood. The import of Quebec pine deals has been much less than that of 1880, the relative quantities being 1,530,000 pieces, against 2,040,000 pieces of the preceding year, but the increase in consumption has again shown how yellow pine in the form of deals is taking the place of log timber, for the consumption has not only swallowed up the whole of the past year's import, but has made an inroad into the old stock of 1880 to the extent of about 4,000 Petersburg standards. The importations of spruce deals from St. John, N.B., and the various other New Brunswick and Nova Scotian ports, show a considerable decrease from 1880, when the quantity was about 6,300,000 pieces, whilst during the past year about 4,900,000 pieces were imported. This shows a large decrease at first sight, but it must be remembered that the import of 1880 was excessive, and the quantity is only a moderate one, being as nearly as possible the same as that of 1879.

The stock of these goods on hand now is only about one-half of that of last year at this time, and this fact, together with the reports from St. John, N.B., and other deal-making districts, of continued mild weather, which prevents sawlogs being got out of the woods, makes this article, at the prices asked for it, appear one of the safest in the market to purchase now.

There has been a considerable reduction in the consumption of Canadian oak logs, which is, however, balanced by the increased quantity of oak shipped from the United States, and cut into sizes suitable for railway waggon building, and as this branch of business has increased to such an extent that not less than 305,000 cubic feet has been sold since the commencement of the past year, it is palpable that it must greatly affect the price of the old-fashioned shipments from Quebec, seeing that at present these goods sawn ready to size and of prime quality, can be bought at less rates than the oak in the log.

Pitch pine timber has been imported very freely, and the arrival of vessels with this wood on board may be said to have continued without cessation from the first day of the year to the last, the steady increase in this trade being shown as follows:—In 1879, about 39,000 tons of shipping were employed, in 1880 about 56,000 tons, and in 1881 about 70,000 tons. With this continued pressure upon the market prices have ruled low throughout the past year, and this state of things is likely to continue so long as the pressure to sell for arrival is so visible and the stocks on hand so large. In hewn timber the stock now is 510,000 cubic feet, and sawn timber and deals 471,000 cubic feet, say nearly 1,000,000 cubic feet of all kinds, as against about 630,000 feet at the end of 1880, and, as the import season for this wood is now again commencing, there is little prospect for any immediate rise.

The importation of Baltic timber has been so small during the past year that the comparison between it and that of the previous year is most noteworty. During 1880 the quantity of fir timber imported into Liverpool was 33,700 logs; in 1881 it amounted only to 8,200 logs, roughly speaking, one-fourth. So far as this port is concerned, we can only look upon the prices asked for red and white fir as being altogether out of proportion to the merits of the wood, when compared with its rivals.

STILL APPROVED.

We have received the following letter, which speaks for itself:—

To the Editor of the Canada Lumberman:

GENTLEMEN,—Please send your paper, the CANADA LUMBERMAN, to the enclosed addresses. I can get quite a number more subscribers, as it is a very useful paper.

I am yours respectfully,
C. WEBSTER.

Lion's Head, Feb. 3, 1882.

THE value of the lumber cut yearly on the Pacific coast, at the rate of £10 per 1,000 feet at the port or place of shipment, is $6,000,000. A thousand years would not suffice to exhaust the giant woodlands extending from Alaska to Santa Cruz, so that on a very rough estimate this portion of the resources of the Pacific slope is worth at least $6,000,000,000.

THE Cincinnati *Gazette* says there is now at the Public Landing in this city a steamboat of large size, built for the purpose of developing a new enterprise, which, if successful, will add to the long list of American exportable produce. The boat is supplied with machinery for the purpose of grinding and compressing tanbark. She will be run up the Tennessee River, where bark is obtainable. There the bark will be taken on board, ground, compressed, and packed in kegs or half barrels, and in that shape shipped to Europe. Bark is now brought to market in bulk and handled at great expense, and cannot be shipped to Europe at all. It is needed in that country to enable tanners to compete with American manufacturers in the production of leather. The compressing of cotton has greatly reduced the cost of transportation, and it is this principal that is to be applied to the tanbark business.

MICHIGAN FOREST FIRES.

DETROIT, Feb. 10.—The Michigan Commissioner of Insurance reports that the losses of 1881 exceed those of 1880 by $500,000. Only twenty stock companies had losses in the burned districts, aggregating $101,942.66, which has been paid, nearly half of it by one company, the Watertown, N.Y. The two mutual companies of Huron, Sanilac, and Tuscla counties had about $80,000 losses, none of which have been paid. It is estimated that the property losses of persons who applied to the Fire Relief Commission for aid amount to $2,138,320, or over $200,000 less than those occasioned by the forest fires of 1871. It is probably however, that when full statistics are collected, the fires of last fall will be found to exceed in damage those of 1871 by many thousand dollars. There are one hundred companies of other States doing business in Michigan, whose aggregate capital is $45,719,280; reduction of assets, $2,392,937.65; admitted assets, $112,935,346.47; liabilities, $81,380,246.23; surplus as regards policy-holders, $77,274,380.24; surplus over capital, $31,555,100.24; risks written in Michigan, $139,891,998.59; premiums on risks in Michigan, $1,675,853.06; losses incurred on above, $1,111,168.19; losses paid, $1,091,956.52. There are only two Canadian companies doing business in this State, the British American Assurance Company of Toronto, and the Western Assurance Company of Toronto. The 1881 statement of the latter is not yet received, but the former has a capital deposited in the United States of $200,000, and its Michigan business for 1881 amounted to $1,588,301 in risks, $27,078 received for premiums, $17,569.03 losses incurred, and $8,959.98 losses paid.

THE Montreal *Witness* says the lumbermen are pushing operations vigorously in the vicinity of Lake Kazizskichiwogamog.

IT is now thought that the Maine lumber cut on the Penobscot waters the present season will not be far from 100,000,000 feet. Last year the total reached 150,000,000. There is, however, said to be an overstock of 60,000,000 of old logs.

END SPLITTING OF LOGS AND PLANKS.—Logs and plank split at the ends because the exposed surface dries faster than the inside. If muriatic acid be saturated with lime and applied to the ends like whitewash, the chloride of calcium formed attracts the moisture and prevents the splitting.

A CALAIS correspondent says on Wednesday morning last, the Custom House door was surrounded by teams from the St. John River. They were being bonded, for the purpose of working in the Maine woods, for which they started as soon as they had complied with the Government requirements.

THE *Northwestern Lumberman* says the New York Central Railway Company has supplied a train of new lumber cars, which arrived at Tonawanda, N.Y., recently. They are so constructed that they can be utilized for either lumber or cattle. Other roads would do well to take pattern after the Central, and thus greatly benefit their patrons, and facilitate the business of lumber shipping, which would prove to the former's pecuniary advantage.

THE Moncton *Times* says reports that have reached us show that the season so far has been good and favorable to economical logging. The lack of snow till January prevented hauling operations, but the weather was most favorable for cutting and yarding. Since the snow has come, hauling has been prosecuted vigorously, there not being sufficient snow to impede the work, as is often the case. Should the season continue steady the result will be very favourable.

MRS. PARTINGTON SAYS, dont take any of the quack rostrums, as they are regimental to the human system; but put your trust in Hop Bitters, which will cure general dilapidation, costive habits and all comic diseases. They saved Isaac from a severe extract of tripod They are the *ne plus unum* of medicines.—*Boston Globe.*

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First Prize, Provincial Exhibition.....Ottawa, 1875
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Tan Bark.

The *Globe* says Canadian capitalists should take immediate note of an enterprise just being introduced on the rivers of the Southern States—namely, the pressing of tan-bark for carriage by rail or export. The press is carried on a stern-wheel steamer which is to run on the Tennessee River as far up as Florence, Ala. She cost $50,000. The press, which is a 14 inch cylinder, is driven by the engines which drive the boat. A pressure of 1,500 tons is put on the bark in the cylinder. The bark is first ground on a machine located in the fore part of the vessel, and is then conveyed by a traveller to hoppers which feed the cylinders. Another traveller conveys the pressed cylinders of bark to the hold for shipment. The substance when pressed is as hard as rock, and needs no barrel, bale tie, or covering. On soaking in water it expands to its former size. In that section loose tan-bark is worth $10 to $15 a ton. The price in Europe is about $30 to $35 a ton.

THE Port Hope *Times* says that the Georgian Bay Lumber Co. intend shipping 50,000,000 feet of lumber at Port Hope next summer.

LARGE quantities of cedar are being gotten out in Door county, Sturgeon Bay region, Wis., notwithstanding the lack of snow. The local papers pronounce the industry a bonanza to the people in that vicinity.

MALTOPEPSYN

AN

Artificial Gastric Juice.

A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the rules of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cts., contains 48 doses or about one cent per dose.

THE Duluth *Lake Superior News* says that the Shell Lake Lumber Co. recently received one hundred cars of snow with which to manufacture lumber roads.

GOLDEN INFORMATION.—A while ago, said Mrs. Dr. A. A Jordan, 51 Lincoln street, Worchester, Mass., one of my friends from the south spoke to me very highly of St. Jacobs Oil. I resolved to try it on my patients, and I must confess that I was surprised at the results. It has never failed to cure all that it claims to, and I prescribe it willingly and confidently to those of my patients who suffer with rheumatism, sprains and all bodily pains. It is certainly a wonderful remedy, and I can highly recommend it.

IS IT A HUMBUG? Some people think all proprietary medicines humbugs. In this they must be mistaken. A cough medicine like N. H. Downs' Elixir that has stood the racket of 52 years must have some virtue, and must cure the diseases for which it is recommended, or people would not continue to buy and use it as they do. It seems to us that even if we knew nothing of its merits, the fact of its large and continually increasing sale justifies us in recommending Down's Elixir to all who may need a reliable cough medicine.

HOW TO CURE A COLD.—Upon the first feeling of chill or shivering remain indoors if possible, bathe the feet in tepid water, gradually increasing the heat as long as it can be comfortably borne, drink freely of warm ginger tea or sage tea, to induce perspiration, and take Hagyard's Pectoral Balsam according to directions on the bottle. Hagyard's Balsam cures coughs, asthma, and bronchitis.

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Brain and

Nerve Food

Is a Sure, Prompt and Effectual Remedy for *Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Spermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs.* The experience of thousands proves it an INVALUABLE REMEDY. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is *the cheapest and best.* ☞ Full particulars in our pamphlet, which we desire to mail free to any address.

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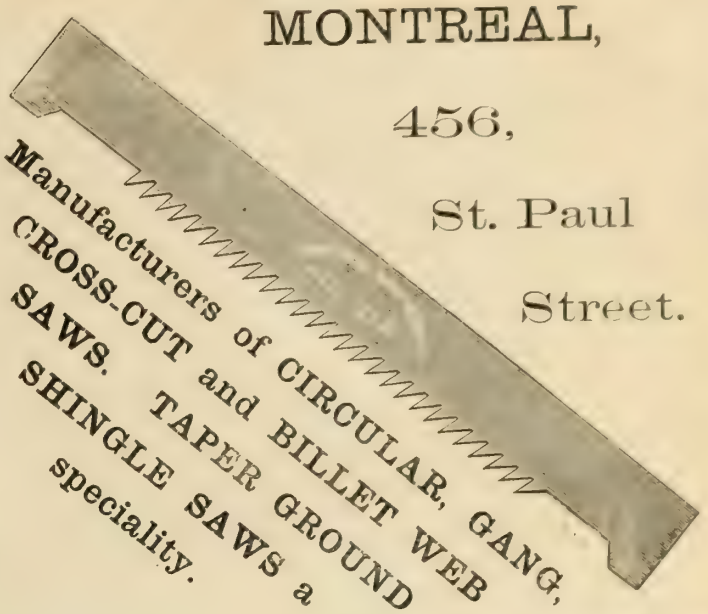

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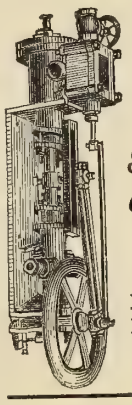

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BOILER FLUID COMPOUND.

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It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

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A NEW DEPARTURE.

The lunch meetings of the lumbermen of this city have resulted in much good. Nothing could have been devised that would do more toward creating a brotherly feeling, and bringing about an understanding between the members of the trade. Several questions of great moment have been discussed, and no doubt with much profit. Over the lunch and cigars good feeling invariably prevails, and when such is the case there is always exhibited a degree of frankness which is not at other times observed. The benefit thus far is almost incalculable, but it need not rest here. There are other steps that can be taken, and which, possibly, would be more valuable than any that have been taken.

The Lumberman's Exchange is a great power. Among its members are included men of unusual intelligence, as well as business ability. It represents a vast capital, and its united voice is one which would not be likely to be ignored. When it speaks it represents one of the leading industries of the nation, and its voice proceeds from the headquarters of that industry.

A question that the members of the Exchange could profitably discuss is, What steps can be taken toward bringing to the notice of the government the necessity of protection against forest fires? It is a question that has a direct bearing, not only on the interest of every owner of pine lands, and manufacturer, but every wholesaler as well. The interests of these classes are inimicable, and any action by government toward the protection of the pine that forms the stock in trade of each, would be of mutual advantage. Individuals have labored to interest our law makers in the question of fire protection, as well as forest protection from other sources, but with little success. We believe the voice of the Exchange would command attention, and attention is the first thing to be desired. Some of the states have made provisions for the cultivation of trees, and it would be eminently proper for government to arrange for the protection of trees.

We believe there is no lumberman who owns pine lands who will disagree with us. A man who purchases timber lands is of course the owner of them, but it does not follow that ownership should give him the liberty to do with them as he likes. If his timber patch is isolated let him operate as he desires. If his leavings are permitted to accumulate and dry, and at last be the means of his standing timber being destroyed, he alone will suffer. But when his timber stands on land adjacent to other of the same kind, or if in case his possessions were swept by fire it would hazard the homes and property of others, the question takes another form. The same law should hold good that is forced in other directions. Under good municipal management a tinder box is not permitted to be constructed in a city where the burning of it would hazard the property of others. By common consent a man must pay some respects to the rights of others, but in the logging business he does not. If he steps over the line and steals a few trees from his neighbour, the law stands ready to make him suffer a penalty, but it is in reality a small offence when compared with the course he does pursue—a course to prevent which there is no law. It is the absence of such a law, and its enforcement, that so often makes pine lands risky property to own. A single winter's operation, as logging is now conducted, forms a good excuse for the flames, if once started, to make havoc that, while deplorable, might easily have been prevented. When the ground is covered with dry tree tops, fire finds food to feed upon, and gets such headway that it sweeps through forests which it would not except for the force which it had already obtained. To do away with these conditions would require considerable work, but no work could be done in the woods that would pay better. As a proof of this we may instance the loss in Canada by forest fires for the year recently ended. In the Ottawa Valley it has been estimated at $5,000,000, and in the entire Province as high as $10,000,000. That amount of money would pay for a vast amount of labor, and a small proportion of it expended at the proper time would have prevented the loss of the balance.

It is a fact that most men learn sooner or later that there is a cause underlying every effect. With no material for fire to feed upon there will be no fire. It is not an impossible thing to get this material out of the way. The tree tops could be piled into heaps and burned under the supervision of men who would see that the fire did not spread. There are windfalls which leave vast areas in shape for conflagration. In this territory the match of the careless hunter or woodsman will, to the end of time, for aught we know, set the dead timber ablaze, but beyond this forest fires need not be extensive, or occur often.

No state in which the lumber business has been extensively carried on has suffered so little from forest fires as Maine. The reason is very apparent, and is due to a species of forest preservation which is practised nowhere else in America. The larger trees are cut, leaving the smaller ones to shade the earth, and thereby so much humidity is retained as to make the running of a fire next to impossible. We do not make this statement, however, with the expectation that such a course will be pursued in Michigan, Wisconsin, or Minnesota until timber is much scarcer than it is now. It shows the wisdom of the Maine lumbermen, nevertheless, and gives them a solid foundation upon which to stand when they assert that there will be timber in that state for the coming generations, in response to the oft-repeated statements made by the western lumbermen for the past twenty years that the timber resources of Maine are exhausted.

It is the experience of nearly every man that to make a success of life he must unlearn much that he has learned. Our pine has been so plentiful that operations have been carried on recklessly. If a portion of it burned, there was thought to be plenty left. It is time that such operations were checked. A habit of carelessness that has been prevalent since the first blow was struck by the lumbermen in the Michigan woods, and an indisposition to spend a few dollars, when the expenditure of them would be an almost perfect assurance against losses which are irreparable, should be rebuked and corrected.

There are no hopes that men in the woods will so conduct their work that fires will be less frequent, unless they are obliged to. They plainly see the necessity of it, and many of them would welcome a law that would force them to do as they are conscious they ought to do. The members of the Exchange can discuss no question that is of more interest to most of them financially. They can decide among themselves what ought to be done, and then take the proper steps toward its accomplishment.—*Northwestern Lumberman.*

TREE CULTURE AND ITS EFFECTS ON RAINFALL.

The rapid denudation of the forest lands of the country has been the subject of much thought and study, not only on the part of those interested in a pecuniary sense, but has called forth numerous lengthy discussions in regard thereto on the part of literary and scientific men whose motives may be less sordid than those of the former class, and whose only object apparently has been the prevention of the wanton waste of one of nature's great donations to humanity, in order that future generations may reap a portion of the benefit thus lavishly bestowed, but of the value of which many people of the present day and generation appear to have a very faint conception. Forest culture to supply the present use and waste of timber has been urged upon the government, and has received such serious consideration on the part of our national legislature that the commissioner agriculture has been induced to form a distinct division in that department, to be devoted entirely to the investigation of this subject, with a distinguished professor at its head, who has been to Europe for the sole purpose of the investigation of this subject, and who is at present engaged in the preparation of recommendations to congress, having in view the planting, preservation, and maintenance of forests on the prairies of the west, the principal object of which, of course, is to supply the future demands of that country, in regard to lumber.

But another and very different motive for the consideration of this subject has lately attracted the attention of writers thereon. Not only do forests supply a necessary want—the supply of the material on which such a vast number of the industries of the country are based, but the influence of the forests on the rainfall of a country is receiving at the present time thoughtful and serious consideration. That they do exert such an influence there is no possible room for doubt. Not only is the view sustained theoretically, but the actual practical experience of thoughtful and observing men, whose interests and occupation has led them to an investigation, coincides precisely with the views of scientific men in this connection.

The writer remembers several years ago, during a trip through Iowa, Kansas and Dacota, having his attention called particularly to this subject, by the pioneer settlers, some of whom had so far succeeded pecuniarily that they were enabled to make practical tests, in order, if possible, to demonstrate the correctness of the theory, that tree-planting or forest culture, systematically carried out on the prairies of the great west, would supply the much needed and anxiously coveted rainfall, the lack of which was the only obstacle to the immediate pecuniary prosperity of the pioneers of civilization, whose influence on the development of the resources of that country has never yet been properly estimated or recognized. So serious consideration had this subject received at that early period in the history of those territories that very many of the settlers were already carefully watching and noting the results of their tree culture, and its influence, and the invariable testimony was that in proportion to the extent to which it was carried on, the increase in the amount of rainfall kept steady pace. Of course when pressed for an explanation as to the manner of this influence, they were unable to give any very definite ideas, but the fact was there nevertheless, and that was satisfactory to them at least.

That forests do therefore induce and increase the rainfall to no inconsiderable degree is indisputable, but as to the manner or methods by which their influence induces such a result it is not quite so comprehensible to ordinary mortals. Experiments not only in this country but in Europe, prove beyond a peradventure that tree planting is beneficial in more directions than one, but especially in regard to the increase of the humidity of the atmosphere.

The Cincinnati *Commercial* of a recent date, in a well written article on this subject, in a measure explains the influence of tree culture on the atmosphere. It says:—

"Forests influence the atmosphere, though, more powerfully by their effect on its general humidity than in any other way. An evaporation of moisture from both earth and trees takes place constantly. The evaporation is greater from open soil than from woodland, but the difference is far more than made up by what is called 'transpiration' of leaves of the trees. This corresponds in a degree to the insensible perspiration of animals. Some conclusive experiments have been made with growing pot plants, going to show that leaves do not absorb moisture, but that, on the contrary, they give it out. The moisture is absorbed through the roots.

"The quantity of insensible vapour that is given off through leaves is immense, amounting to one and a quarter ounce to the square foot of leaf surface. The world-old metaphor of counting the leaves of the trees has a new significance in the light of science. Painstaking experiment has enabled those studying the matter to make an approximate estimate of the comparative amounts of vapour given off by earth surface and leaf surface. They have calculated that a square foot of soil sets free about six times as much moisture as a square foot of leaf. The leaf surface is, however, many times greater than the soil surface—twelve times greater, the scientists put it—so that twice as much evaporation takes place from forest as from open land. When the wood of the country is cut away, therefore, other things being equal, two-thirds of the moisture-giving material of the atmosphere is gone with it. Hence the long, fearful droughts on lands bare of trees."

A writer in the *American Naturalist* also says in this connection:—

"From the data obtained it would seem safe to infer that when the percentage of woodland is fair (25 to 30 per cent) at least twelve inches of water is transpired in the course of a season in mild or temperate climates, or, in other words, twelve inches of the total annual terrestrial evaporation. All this vast amount of water is transpired in about six months, or during the vegetative period. Under these circumstances an equivalent of nearly half the rainfall during the warm season may be accounted for by the transpiration. These are striking facts, and tell in indisputable terms of the happy effect of plant life upon the humidity of our atmosphere, as this substance in due proportion is very essential to an equable and salubrious climate. Were it not that the atmosphere was properly moistened so as to intercept nocturnal radiation from the earth, our cereals and other products of husbandry as well as vegetation generally, would greatly suffer if not be entirely destroyed by the resulting frost.—*Lumberman's Gazette.*

A TALK WITH A TIMBERMAN.

When an *Advance* reporter dropped into the office o Messrs. Burton & Bros., yesterday, he found Mr. James Burton, the senior partner in the firm, scanning a map of the Muskoka and and Parry Sound Districts. "No, we don't own the whole district, my gentle gazelle," he said with a laugh at the reporter's little familiarity. "But we have a stake in the country. You see these colored sections. Well, they represent $750,000 of timber limits. A nice little figure, and don't you wish you had it to your credit in the bank?" The newspaper man disclaimed any such sordid ambition. It was glory he was after,—and local items. "Our limits," continued the timberman, "are in these townships. They embrace about seventy square miles. In this one, Armour, we have now at work over 100 men and teams." "How do you get out the timber, and where do you ship it, Mr. Burton?" queried the scribe. "The Maganettawan runs right through our limits. We take our stuff down that river to Byng Inlet; there our boats take it on down to Kingston where it is rafted and sent down the St. Lawrence to Quebec." "You are not in the lumber business now, I believe." "No. Last year we sold our lumber interests in Michigan for $50,000. But we have land there—15,000 acres of good land, and the Marquette railway runs right through it." "Business good?" "Splendid!" "Paying?" "At present prices I should think it was. Nobody needs to lose money in the timber business in this country now. The demand is constantly increasing while the supply is rapidly decreasing." "You are one of those alarmists who believe that our forests are disappearing and that before many years there will be a wood famine?" "That's a fact; unless some means are taken to repair the waste going on we must exhaust our timber resources. What with bush fires and wasteful cutting, timber is becoming more and more scarce and dear. Take a look around you in this very county. Twenty years ago Cook Bros. bought 1,800 of bush land in Tiny township for 10 cents an acre. To-day they refuse $90,000 for it. This may be hard to believe, but it's truth. Oh, yes! There is money in timber just now." The lumberman turned to his map and the reporter turned to his heel.—*Barrie Advance.*

PLANTING FORESTS.

A correspondent of the *Timber Trades Journal* says:—"In our day we have seen the desirable policy of planting forest trees largely pursued. In the hands of those interested in this nationa work the old stock of native trees has not been neglected, overlooked, or despised, but along with them have been planted great numbers of soft-wooded trees, which were previously strangers to the land, viz., the Scotch fir, the Norway spruce, and the European larch. As these trees are ready for the market, we have for the first time in English history a native-grown soft wood, which can be used for the thousand and one purposes to which the soft imported woods of the Baltic provinces are applied."

"And fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly to its wonderful effects.

PROTECT THE FORESTS.

Those who have read the late census reports of the rapid destruction of the timber in the great lumbering districts, and note on the maps the location of forests distant from navigable streams, will see at a glance that in the near future lumber must largely increase in value from necessary increase of cost in procuring it. Men raised in woody countries seem to cultivate an enmity to trees, and the destruction from the axe, from carelessness and from fires can scarcely be overestimated. It has been the history of the West and Northwest. There are millions of acres which have been denuded of their forests to make way for farms, where to-day single trees that were then sacrificed would sell for more money than any acre of the ground. It may be said that this was a necessity, which is doubtless true to a certain extent; but that necessity does not continue. The man who owns a forest should guard it and reasonably expect a rich reward in the future for his care. It would seem as if the United States should imitate the German empire in protecting its timber, and, as well, replanting large districts not otherwise used. Germany has acted far more wisely in this matter than other European countries. Italy, Spain, Austria and Russia have allowed the destruction of millions of acres of as fine forests as ever grew, and are now paying the penalty of gathering their timber from mountains and places difficult to reach, or importing from more favored countries. The Gulf States and Oregon and its adjacent Territories are yet rich in fine timber. That there should be some sure means of protecting it from needless ravage and destruction no thinking man can doubt.—*Inter-Ocean.*

THE WAY IT IS DONE.

The extent to which the modern appliances of railways and rollways are employed for getting logs to waters and mills is illustrated by the following:—The Saginaw and Northwestern railway runs from Saginaw Bay through Pinconning, a distance of ten miles, then north twelve miles. It has several branches from one half to two miles in length. At the Bay there are two trestles, their united length being 3,000 feet, and they stand about twenty feet above high water mark. On the line of this road and its branches are twenty-two camps in operation—three camps belonging to Yawkey & Bradley, three to H. W. Sage, two to Falsome & Aarnold, and four operated by W. J. Miller & Co. These camps are worked by an average of eighty men, divided into a day gang and a night force. At the Bay there are eighty men, divided in the same way, one gang to load cars and the other to unload. The road has six engines, five in constant use, night and day. At the Bay the logs are dropped off the trestle and rolled a distance of 600 or 800 feet, and then "tiered up," so that at the finish they are in perfect tiers, each marked by itself with appropriate camp marks. At this rollway have been banked this year 26,000,000 feet of logs. The President of the Company operating this road is W. S. Gerrish, of Muskegon, and W. J. Miller is the general manager.—*Northwestern Lumberman.*

Manufacturing Economy.

While on all sides endeavors are being made for the preservation and culture of our forests, why is it that so little is said about proper economy in the use of forest products? We do not refer to the reckless spirit which leads the farmer in some districts to build hog pens out of black walnut, but to the failure to utilize all that is possible in large manufacturing establishments. Not only the vast piles of slabs from the saw mills, but the ends and strips from the furniture manufactories, and kindred establishments, might, it would seem, be used to better advantage than to feed the furnace. In some of the large mills abroad a most rigid economy is practised in this respect, and indeed this spirit is beginning to be introduced into this country. Of course it is a little difficult to be economical, when seemingly unlimited supplies are within reach, but manufacturers are already feeling the effects of the scarcity which is bound to come sooner or later. Would it not be wise to anticipate things a little by employing much of what goes to waste for purposes for which it is fitted?—*Buffalo Lumber World.*

PLANT HICKORY TREES.

Many people would like to have a hickory grove, but have a vague idea that it is a terribly hard thing to get. But it is not so much of a task. Plough your ways four feet apart, follow the marker with a roller that will not efface the mark. Do this the first week in October, or maybe earlier. Have a sack of nuts, with the hulls on, sent you as soon as they get ripe enough to grow. Take a hoe, and at each crossing of your check-rows plant a nut about an inch and a half deep, stepping hard upon it. Next spring run a harrow over the ground quite early, say as soon as the frost is well out. When your trees come up cultivate them the same as corn, being careful not to bruise in any way. After they get too high for the cultivator, attend to them with the hoe. Mulch in the fall sufficiently to keep the weeds out the next spring. If any should come, keep them pulled. In ten years you will have all the hickory nuts and timber you want, if you have an acre in your grove. A moist location is the best—just as wet as will do to plough—if you have it.—*Lincoln (Neb.) Journal.*

Two Organs.—Regulate first the stomach, second the liver; especially the first, so as to perform their functions perfectly and you will remove at least nineteen-twentieths of all the ills that mankind is heir to, in this or any other climate. Hop Bitters is the only thing that will give perfectly healthy natural action to these two organs.—*Maine Farmer.*

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

"Don't Give up The Ship" were the memorable words of Commodore Perry. We repeat, "Don't Give up the Ship," poor, despairing involid, but try Burdock Blood Bitters. It cures others, why not you? It renovates, regulates and tones all the organs of secretion, and restores lost Vitality.

The seven kings of Rome were Romulus, Numa Pompilius, Tullus Hostilius, Ancus Martius, Tarquinius Priscus, Servius Tullius, and Tarquinius Superbus, and the King of Steel Pens is Esterbrook's Falcon, No. 048.

Timely Warning.—Now is the season for sudden colds and distressing coughs, treat them with Hagyard's Pectoral Balsam, it cures influenza, asthma, croup, whooping coughs, bronchitis, and all pulmonary complaints leading to consumption.

"Twenty-four years' experience," says an eminent physician, convinces me that the only way to cure nervous exhaustion, and weakness of the sexual organs, is to repair the waste by giving brain and nerve foods, and of all the remedies compounded, Mack's Magnetic Medicine is the best. See advertisement in another column.

Lame Back.—Lumbago, Kidney complaint, Neuralgia, Rheumatism, and all pain and inflammation are speedily cured with Hagyard's Yellow Oil. Croup, sore throat, colds, burns, scalds, bruises, frost bites, chilblains and all wounds of the flesh are quickly healed by Yellow Oil.

WELLAND CANAL.

Notice to persons skilled in fitting up Electric Lights.

Sealed TENDERS addressed to the undersigned and endorsed "Tender for Electric Lights," will be received at this office until the arrival of the Eastern and Western Mails, on TUESDAY, the 21st day of FEBRUARY, next, for Lighting the Locks, &c., on the new part of the Welland Canal by means of Electric Lights.

A plan, showing the relative position of the proposed lights, can be seen at this Office and at the Office of the Resident Engineer, Thorold, where a printed copy of general conditions and other information can be obtained, either on application personally or by letter.

Tenders must be made in accordance with the general conditions.

This Department does not, however, bind itself to accept the lowest or any tender.

By order,

F. BRAUN,
Secretary.

Dept. of Railways and Canals,
Ottawa, 31st January, 1882.

4d30-1L4

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will give immediate relief, and in a short time effect a permanent cure. After constipation follows Biliousness, Dyspepsia, Indigestion, Diseases of the Kidneys, Torpid Liver, Rheumatism, Dizziness, Sick Headache, Loss of Appetite, Jaundice, Apoplexy, Palpitations, Eruptions and Skin Diseases, etc., all of which these Bitters will speedily cure by removing the cause. Keep the *Stomach, Bowels, and Digestive Organs in good working order and* perfect health will be the result. Ladies and others subject to SICK HEADACHE will find relief and permanent cure by the use of these Bitters. Being tonic and mildly purgative they
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Travelling Agent.

MR. A. L. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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Advertisements intended for insertion in any particular issue should reach the office of publication at least three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. FEB. 15, 1882.

MR. S. C. KANADY, lumber dealer, of Toronto, has taken into partnership Mr. A. R. Riches, the firm now being S. C. Kanady & Co.

THE pine forests of Georgia are being rapidly destroyed. The State exports 300,000,000 feet of lumber every year, and so strips 96,000 acres, and it is thought that half as much more is spoiled and wasted by the turpentine makers.

B. F. Weston, of Muskegon, is building a tram road to facilitate his lumbering operations. He don't propose to be dependent on snow in the future, but will get out the logs whether the "beautiful" puts in an appearance or not.

THE project of a hospital for lumbermen, at Chippewa, Wis., is growing apace. A considerable proportion of the $8,000 required to put up the building is already subscribed. Subscriptions are to be asked among the loggers themselves to pay the running expenses of the enterprise.

MESSRS. BRYCE, JUNOR & Co., of Glasgow, have taken Mr. Joseph White into partnership, the firm now being Bryce, Junor & White. In their circular they say:—"Our Canadian friends, Messrs. H. B. Rathbun & Son, have greatly enlarged their factories, and we can now offer their doors and mouldings in increased quantities."

WE take from the *Timber Trades Journal's* table of the distribution of imports, the six principal British timber ports with the number of loads they received :—

London	1,404,793
Liverpool	524,404
Hull	364,831
Cardiff	288,182
Hartlepool	259,942
Grimsby	216,942

No other ports received over 200,000 loads, Newcastle coming next with 175,413. In the Clyde, Glasgow has 67,042 loads, and Greenock 155,157, a total of 222,201. Of Irish ports, Belfast heads the list with 88,998 loads.

POLE ROADS.

In reply to an enquirer the *Northwestern Lumberman* says :—Pole roads for logging purposes are the simplest among the many forms of road which lumbermen find convenient and necessary in the prosecution of logging operations, when snow and ice roads are not available. They can be constructed in any locality where the ground is reasonably level, and are particularly adapted to such locations as present a sandy or fairly firm soil. They consist of long, small, peeled poles, the longer the better, from four to five inches in diameter at the top, to eight or ten inches at the butt end. The more evenly they carry their size from butt to top, the better the road. The ends of the butts, as well as of the tops, are long scarfed, and pinned together with suitable hardwood or strong pins, of one and a half or two inches in diameter, according to the size of the timber through which they are to be driven. Tops should be scarfed to tops, and butts to butts, in order to provide a perfect bedding of all parts in the ground. If the scarfing is done so as to cause the poles to lay naturally on the ground when in place, the pins should be long enough to penetrate the ground for some distance. This is all the fastening or anchoring usually provided. The wheels of the car are concave, or V shaped, and as they pass over the rails naturally force them to maintain their proper distances from each other, while preventing them from spreading apart. It will take but a few trips of a loaded car over these poles to bed them in the earth, when spreading is practically out of the question. The wheels must, in their concave surface, be adapted to the general size of the poles to be used, and if larger poles are employed, or large butts are used, the axe must be used in hewing off enough of the surplus wood to give the wheels a sure bearing. Any kind of timber that carries its size well, may be employed, and if a pole gives out it is easily replaced. But comparatively little grading is requisite, although it is obvious that the more level the top of the track is kept, the less friction is encountered, for this reason it is well to bed the butts enough to bring them level with the bedded tops. No cross-tieing is employed, and so solid are these roads that in many sections light locomotives are run upon them. With these general points stated, any man who comprehends the conditions under which concave wheels may be kept from running off through mounting the poles should have no difficulty in building a pole road. If the soil is not sufficiently firm to prevent the poles from becoming too deeply imbedded, cross-ties of poles may be used, but as a rule they are more harm than advantage, as they tend to prevent the self-adjustment of the track for which the concave wheels would naturally provide.

THE CLYDE TIMBER PONDS.

The Glasgow *Herald* states that an inspection of the timber ponds along the south side of the river, from Greenock to near Langbank, which were broken up by the severe gale of Friday, the 6th Jan., shows that the damage done is very great, many of the ponds being completely denuded of their logs. The river from Bowling to near Greenock was covered with floating timber on Friday and Saturday, rendering navigation very difficult. Thousands of logs have got stranded on the north banks, but the greater proportion is still afloat. Squads of rafters were despatched from Greenock and Port Glasgow to the ponds on Friday night, and they were engaged up to dark on Saturday securing what timber remained in the ponds, and repairing breaches made in the palings. The timber measurers of both ports resolved to act together for the benefit of all concerned, and on Sunday morning three tugs left Greenock with about twenty-five men each on board. One of the tugs proceeded down the river as far as the Cloch, and picked up every floating log which could be seen, instructions having been given that any timber found on the shore was to be allowed to remain in the meantime. The other two tugs proceeded up the river collecting the timber afloat, and having it towed to places of safety. Their efforts proved very successful, upwards of 2,000 logs being towed into Port Glasgow the same night by the three tug steamers. A like number of logs was again picked up on Monday, but this is only a fractional part of the timber adrift and ashore on the north side of the river. It will be several days yet ere the river is clear, and steamboat masters would therefore do well to use every precaution while navigating their vessels. Already two paddle steamers have sustained considerable damage, and the traffic on the river for some days past has been comparatively light, else greater damage would probably have been done. It is computed that the cost of collecting this enormous quantity of drifting timber, replacing it in the respective ponds, and repairing the damage to the stakes will not be less than from £2,000 to £3,000.

TORONTO LUMBER SUPPLY.

It is probable there will be a somewhat limited supply of lumber in the Toronto market this year. Most of the pine lumber used in this district comes from Muskoka, and although there is at present very fair sleighing in that region, the snow was so tardy in putting in an appearance that many of the lumber operators dismissed their hands for fear that they would not get good hauling. There is, moreover, and will continue to be, an unprecedented demand for lumber in the United States, so that it may be expected to be abnormally dear in the spring and summer. A *Mail* reporter yesterday interviewed several of the prominent lumber operators, and they all were apparently of the opinion given above. Mr. H. H. Cook, M.P.P., thinks there will undoubtedly be a shortage of logs. He is of opinion that the supply of lumber in this country will be about the same as in former years, but cannot be increased, and will be absorbed by the demand. There will in all probability, he says, also be a short supply of logs in the United States, as in North and South Michigan, where large quantities are cut, there is no snow at all. A great quantity of logs had been cut in the Ottawa district, but he did not think the lumbermen would be able to get them to the mills. It often happened that it took the Ottawa lumbermen two years before they got their logs down to the mills. In regard to the future supply of lumber, Mr. Cook said there was not the slightest danger of overstocking the market as long as the present prosperity of Canada and the United States continued.

It is almost a certainty that most kinds of lumber will be much dearer this year, and the additional price will no doubt affect the cost of buildings in this city, and increase the estimates for contracts generally. In view, however, of the augmented business of the country and the prosperity of all classes, the differences in prices is not likely to check building operations, and may perhaps pass unnoticed in the general capacity to pay more money for all kinds of material and labor.—*Mail.*

OLD TREES.

The ages attained by some of the coniferæ are scarcely less extraordinary than their colossal bulk. The greatest longevity assigned to any tree is perhaps credited to the celebrated taxodium of Chapultepec, in Mexico, 117 feet in circumference, which is thought by De Candolle to exceed in age the baobab of Senegal, inferred to be 5,150 years old. Goeppert states that *Taxodium distichum* has been ascertained by its annular rings to live 2,000 years. The mammoth tree has been estimated to live 4,000 years in California. De Candolle quotes a number of instances of longevity in the yew, and Endlicher considers one in Derbyshire to be 2,096 years old, and the one at Grasford, in North Wales, 1,400 years old. The pines, cypress, firs, larches, and cedars are credited with ages of 200, 300, and even 500. Picea 200 feet in height is mentioned by Goeppert, as ascertained by its annular rings, to be 460 years old, and a larix of 120 feet to be 576 years old. The Scotch pine (*Pinus sylvestris*) is said to require 200 years to mature its timber to perfection. In Veitch's Manual of the Coniferæ the ages of some of these are stated at considerably less. Other examples of longevity greater than 500 years are mentioned. These are *Cedrus deodara*, 750 to 900 years; cedar of Lebanon, 600 to 800 years. It is important, however, to recognize the fact that rings of growth are not in all cases trustworthy guides, and the subject is still involved in some obscurity. The rings of growth in eucalyptus have been ascertained to be biennial. White cedar planted in England show symptoms of decay, as in Richmond Park, as if their full age in this climate at least were already reached,—*Gardeners' Chronicle.*

MADOC.

The *North Hastings Review* says that the Midland R. R. Co., have arranged with Mr. Wood for their supply of ties on the Madoc Branch. Mr. Wood is also buying for Messrs. Rathbun & Son, on the Moira river at and below Malone. We are informed he has a large quantity already secured. Taking the lumbering operations in all its varied branches in this section and vicinity, including logs by the Messrs. Gilmour & Co.; square timber by Messrs. Buck & Stewart, with the ties, posts and round timber by Mr. Wood, on the Moira, and Messrs. Thompson & Diamond on Black Creek, and Mr. Harrison on the Scootamatta, for Rathbun & Son, and the amount must be simply enormous. At the Madoc station alone there has been, we are informed, delivered by teams and railway, oats and peas, for supplies to these various lumbering establishments, not less than 60,000 bushels, to which must be added large supplies of pork and flour. We also learn that supplies are purchased at this point for some of the shanties belonging to H. R. Booth and Bronson & Weston, of Ottawa, Mr. Booth having purchased a large quanlity of oats and flour from Mr. A. F. Wood for the use of shanties where the logs will be drawn to the Madawaska and its branches for Ottawa. The amount of business done at the Madoc station by Mr. Blount for Gilmour & Co., and Mr. Dwyer for Rathbun & Son, must have been very large, and shows beyond a doubt the wisdom of railway connection in the lumbermen's interests alone. We are informed that the quantity of logs and ties that will be driven down the Moira this coming season will exceed anything in that line that has ever taken place on that river before.

IMPORTS AT CLYDE PORTS.

The following is a table of comparative imports at Clyde ports during 1879, 1880, and 1881 :—

	1879.	1880.	1881.
	Logs.	*Logs.*	*Logs.*
Waney board pine, Quebec	2,101	11,167	9,124
Square yellow " "	13,231	36,787	33,136
Red " "	3,028	13,241	6,094
	18,360	61,195	48,354
	Logs.	*Logs.*	*Logs.*
Oak, Quebec	4,300	6,789	6,943
Elm, "	992	5,712	4,625
Ash, "	408	2,215	2,381
Birch, all sorts	2,030	9,676	7,256
	7,730	24,392	21,205
	Pieces.	*Pieces.*	*Pieces.*
Deals, Quebec	499,700	1,003,262	415,704
" N.B. and N.S.	29,500	773,344	895,826
	529,200	1,776,606	1,311,530
	Mille.	*Mille.*	*Mille.*
Staves, Quebec	142	436	175
" New York	480	203	500

The following is a comparative statement of stock in Clyde ports, on December 31st, 1880 and 1881 :—

	1880.	1881.
	Cub. ft.	*Cub. ft.*
Quebec waney board pine	672,525	767,531
" square yellow pine	1,316,200	1,127,900
" red pine	387,232	372,306
Lower port yellow pine	4,189	—
Baltic red and white pine	130,311	94,965
Pitch pine timber	535,500	1,100,381
Quebec oak	319,344	348,500
" elm	146,888	244,781
" ash	32,367	35,855
" and lower port birch	60,230	62,336
" maple	—	8,154
" cherry	—	1,442
" hickory	5,991	3,961
" whitewood	633	3,468
" tamarac	1,511	1,123
" 1st pine deals	548,430	271,451
" 2nd " "	80,102	29,942
" 3rd " "	387,150	271,599
" 4th " "	129,100	81,869
" red pine deals	134,000	59,154
" spruce deals	144,810	75,533
Lower port spruce deals	174,230	186,292
" pine deals	158,600	174,898
	Mille.	*Mille.*
Pipe staves	47	12
Puncheon staves	166	49
New York staves	30	80

THE *Lumberman's Gazette* says that a bill is to be introduced in the Wisconsin Senate levying a tax of 15 cents on every 1,000 feet of logs run out of the state. This is aimed particularly at one company. If the bill passes it will add $100,000 to the revenue of the state.

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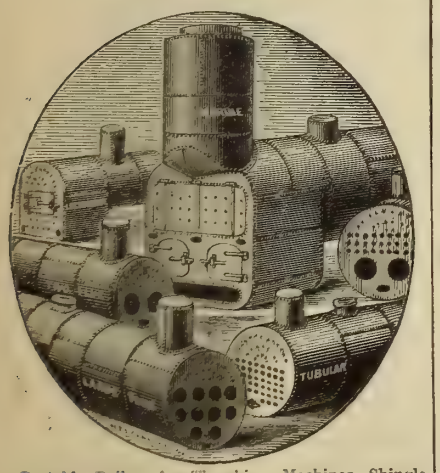
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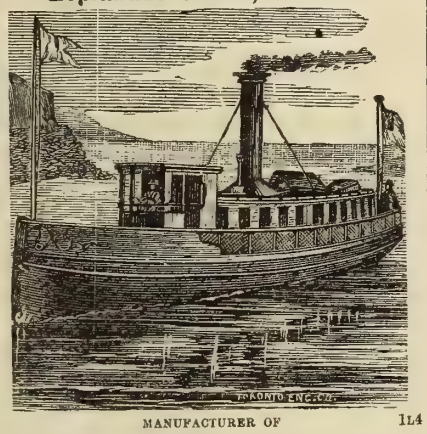
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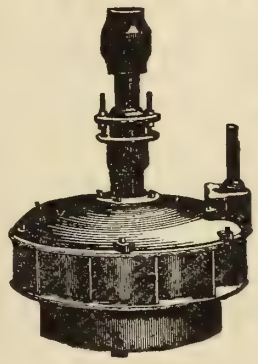
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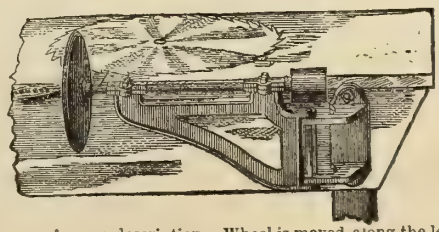
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FORESTRY, ITS CLIMATIC AND HYGIENIC INFLUENCE.

The following is the conclusion of Mr. M. McQuade's essay :—

THERMAL INFLUENCE OF TREES.

In the former paragraph we considered the use of timber in the collection and condensation of water, and shall now try to show their influence in modifying the heat and cold of the climate. It is one of nature's laws that *when a body passes from a rarer to a denser state, heat is liberated, and from a denser to a rarer, heat is absorbed.* Now, the sun's heat is a very powerful agent in the growth of plants, so much so that without it no vegetable can come to maturity, but experience proves that too much heat will destroy vegetation. Newspapers report that crops have been burned off the ground in several parts of the Western States during the past season. We have had similar experience in Huron County some five years ago, when a hot wave, of some two days' duration, passed over us, at the time when fall wheat was getting in the milky state ; the result was that there was no grain formed. In a rich field which had been summer-fallowed from an old common at Exeter, and was some twenty acres in extent, with a crop of straw that should ensure forty bushels to the acre, there was not one grain of wheat. Others, from fifteen acres, got from forty to fifty bushels of chicken feed, while others, who happened to have it on strong clay land, and with timber land on the west side, got somewhat over half a crop. (Our prevailing winds in summer blow from west or south-west). The question is, How did the woods to the windward save the grain? Was it by its shelter or by its evaporation? By both. First, a hot wind moving rapidly will heat and dry more than a slow one, or a calm of the same temperature. Second, the chemical action going on at the surface of the tree tops takes the fierceness out of the sun's rays, which afterwards reached the ground through a stratum of vapour, and on that account the crop was not completely destroyed.

If this paper were intended for scientific rather than agricultural information, we could show how much heat is converted into motion, and therefore rendered insensible by a given quantity of water at, say sixty degrees, passing into vapour and then into its gases ; but since the calculation would not be very interesting to farmers, we shall take a familiar illustration. To change water into steam at the least requires 212 degrees ; but this is not all. You may confine that steam, and add another equal quantity of heat and the thermometer will indicate no higher temperature. The only difference between steam at the boiling point and steam which has taken the double quantity of heat, is, that that which has absorbed the most heat will have the greatest motion among its particles. We see then that the power of water to neutralize heat is very great, and will increase as the heat is intensified. But we must go a step farther in this direction, and show that the leaves of vegetables are natural laboratories in which, through the agency of heat, an intense degree of cold is generated. Part of the water which flows as sap, by the natural forces, at the surface of the leaf, is decomposed and changed into its elements—oxygen and hydrogen. We have seen that water passing into vapour may neutralize from 450 up to perhaps twice that quantity of heat ; but when we come to consider its still greater change to its gases, a very much greater effect will be produced.

If we wish to decompose water by means of heat we must first bring it to steam, then throw that steam against some body that is as hot as iron at a red heat, when the water will pass into its elements. (This is the cause of steam boiler explosions). From these facts we may easily comprehend the wonderful influence of growing timber in the reduction of temperature in our hot spells in summer, when our crops are liable to be roasted before they come to maturity, and pastures are burned brown.

Let us now take a look back, and see how these facts square with our experience from thirty years ago down to the present time. At that time, when little land was cleared, when such a thing as prevailing wind was uuknown, when the sun's rays struck directly down on the little clearings and were reflected from the walls of timber both morning and evening, when one would suppose that by the addition of reflected heat the crops should be in more danger—what was the result? Were there any sunstrokes, did our crops wilt prematurely, or pastures get parched? Never. It is true that we then had rather unfriendly showers in haying and harvest; that he who wrought hard, watched the weather signs, and was not afraid to haul in hay or grain all night, would have good flour and fat cattle ; but he who took his ease, stuck to the ten or twelve hour system, would have spoiled clover, and see his cakes run out of the pan. Short or parched pastures were unknown in those days. Cattle which could be brought through alive to the first of May would be fit for the butcher on the first of November. Even the after-grass on stubble-fields was so rank as to interfere with fall ploughing. Contrast then and now. Bare, square, open pasture fields, with the colour of the soil shining through, as if fire had passed through them, leaving the stubble of grass as brown points, and the roots like dry stubble. Nothing green, except, perhaps, a few omnipresent perennial thistles ; cattle panting with heat, or going in a trot to watering trough ; while some unfortunate, ignorant of the thermal influence, or driven by necessity to dangerous exposure, falls a victim to the sun's rays. The verdict charges the calamity to the sun, and some extra religious body may go so far as to charge the Maker of the sun with the damage, when in reality it or He had nothing to do in the matter. The paying price of cordwood, the great demand for salt and flour barrel staves, the wasteful conduct of the farmer and lumberman must shoulder the blame. The time is very near at hand when we shall not be able to find a single tree fit to make a stave in our district—when all the elms over twelve inches in diameter will have vanished from the land. Then, why not spare before all is spent? Save at least the remains of our original forest elms which have not attained maturity ; do not cut down a young, healthy, vigorous-growing tree, unless you have more timber than clearing—unless you are prepared to see your grain and grass shortened beyond the point of profitable cultivation.

THE EFFECTS OF GROWING TIMBER IN MODERATING COLD.

Like the raw recruit who blew his fingers to warm them and his soup to cool it, nature uses water as a check to the extremes of cold as well as heat, and has placed a beneficent law which, under proper management, will soften down both ends of the scale. Water increases in its density from its elements down to forty degrees, where further density stops, and from that point it will begin to lose density and be changed into snow or ice. Here we have to begin at the other end of the process, and use the agent that destroyed or stored up heat to give it out again, confirming the philosophic axiom, that nothing can be lost in the world. As we saw before, that when a body passes from a denser to a rarer state cold is produced, so, when it passes from a rarer to a denser, the heat is once more given off. When the sun's rays strike the surface at a small angle, and the mercury drops down to thirty at nights, the vapour in the atmosphere condenses to water, and is further converted into snow or hail. That heat which was used in vapourising the water is again thrown out on the air, to warm the breeze and make northern lattitudes habitable.

TREES AS SHELTER AND FENCE POSTS.

It will be only a tedious repetition to go further into the climatic influence of woods, and we shall now consider its use as shelter to fields, and the necessity of keeping our fields covered with snow, if possible, during winter. Where our wheat and grass lands can be kept covered during the winter season—which will prevent the surface from freezing and thawing—good results are sure to be obtained ; while if left bare the ground will freeze, and by its expansive force break the roots of grain or pull up clover. When a thaw follows the surface shrinks, and sometimes runs, leaving the surface roots exposed, which are dried out and killed by the sun's rays and dry winds—a practical experience of which we had last spring, when the surface roots of the wheat were so dried up that all the side shoots died out, and only about one or two of the centre stalks in each bunch came to maturity. Such a state of things is new with us, which only proves that we must be prepared for new and costly experience, unless we can, in some way, replace the timber that has been taken away.

The kinds of timber to plant can easily be learned by every one, for each soil and climate has some variety peculiar to itself—some sort that would do on one soil and would fail on others. The evergreens, pine and spruce family, are best suited as wind-breakers, and some, among which may be mentioned the European larch, very valuable for the durability of its wood. Our own and Norway spruces grow well when properly started. The tamarack grows fast on any soil, but has the disadvantage of shedding the leaf in autumn, and its timber is not durable, besides it is liable to be attacked by borers and killed early. The Austrian pine succeeds very well in heavy or light soil, but, except for variety, must give place to the spruce family. Anyone desirous of planting should consult an experienced nurseryman, who will not only furnish him with the proper stock, but the information concerning his soil and modes of planting. One thing must be borne in mind, that the cone-bearing, or resinous trees, must be planted by themselves, for when mixed with those that shed the leaf, such as the hardwoods, or even poplars, neither will succeed. Our own forest timbers, those which grow naturally on the soil, should be preferred for general planting, and may be so placed as to be used as shelter and fence posts. By selecting some of our rapid-growing kinds, such as hard maple for high land, soft maple, black ash, and soft elm for low, heavy land—and planting in close triple rows along boundaries, or dividing fences in such a way that the middle row might, after it had grown sufficiently large, be used to fasten fence wires to, thus securing the double purpose of shade, shelter, and fence. On that side of the farm most exposed to storms it would be advisable to plant the coniferous kinds, which would not only tend to the beauty of the landscape, but protection from storms, and would more effectually secure a covering of snow to the adjoining fields. Unless in cases where there may be a plot of poor land, unprofitable for cultivation, we know of no better place to plant than around fences.

PLANTING.—"Where there is a will there is a way" is as true in this as in any operation ; and anyone who is in earnest will find not only the plants, but information and time to put them down. Since failure or success in the first attempt will exercise considerable influence in after operations, it is desirable that ardour should not be damped in such beneficial operations, but that all the elements to secure success be present from the commencement.

In our short, hurried seasons time is a great deal to the farmer, and the labor of planting should not interfere with seeding. Although it will be both cheaper and better to get spruces, larches, and the like, from the nursery ; the hardwoods can be got in abundance almost anywhere that old timber has been extensively cut and left commons. There are places in this vicinity where hard and soft maple and all the kindred timber plants can be got of any age, growing in the sunlight, and standing often so thick that a person cannot get between them, from half an inch to an inch through, and from seven to nine feet high, healthy, vigorous and straight. For those who have not much seeding or other work in early spring, the supply can be got in spring and immediately set out ; but where it is desirable to set out many at a time, the better plan will be to take a sharp axe and spade and dig up the required number just as the snow is beginning to fall, shake the clay from the roots and dip the roots into a puddle of clay, made to the consistence of thick cream, pile them in your hay rack and take home. Next, select a place in some of your fields where snow will not drift very high, but away from fences, for fear of mice, and plough three furrows, throwing one twice over ; lay the trees close in a row with roots against last furrow thrown out ; hitch one horse to your plough and throw one furrow back on the roots ; then put on your other horse and throw up two deep furrows, level the clay in over the collar and part of the stalk with the shovel, and the fall work is done. The object of the deep furrow is drainage, and should run with the water-shed of the ground. We would also plant with the plough, and, if possible, summer-fallow the ground. Before setting down in spring, all bruised roots should be cut off smooth with a sharp knife, and the head shortened in to correspond with the reduced roots, then dip once more in clay puddle, plant while the ground is in good order, shake the tree to get the fine mould well among the roots, set a little deeper than it stood in the woods, stamp well down, seed with clover, and mulch heavily with sawdust or short straw around each tree and leave the rest to Providence. It will be prudent to bring about two plants to the hundred more than you have spaces for, which can be set in a corner to fill a vacancy in case of accident.

THE PRESERVATION OF OUR ORIGINAL FOREST.

On this topic very little need be said. Like a fish out of water, the few patches of original forest have had their surroundings changed by being exposed to rapid currents of air to which they were not accustomed at birth, or during growth, and therefore their means of feeding have been entirely changed. The result is that those that have advanced towards maturity and attained high heads are dying of starvation, while trees of later growth with low heads drink up all the carbon of the air which circulates among their branches, and leaves the light barren air to rise in mockery around the heads of their hoary parents.

The cause of decay of high-headed trees may be explained in this way : Trees derive nearly all their vegetable food from air. The coat of leaves which annually falls undergoes fermentation. In this process carbon, which forms the more bulky part of wood, is, by the action of oxygen, converted into carbonic acid gas, which is once and a half as heavy as air. This gas, in forest in its pristine state, rose slowly in the calm of the woods till it came within reach of the high-headed trees, where, in the sunlight, they drank it in and flourished. Since plants feed plentifully only in sunlight, the younger trees that were lower and consequently in the shade of the older ones, were enabled to take only a small portion of this vegetable food. On account of their unfavorable stature they struggled with all their strength to get their heads up in the light. In an unbroken forest a breeze is impossible, and the gases rise calmly and slowly to the top of the tallest trees, but the moment that forest becomes reduced to a clump or thin belt, a continual breeze sweeps through, the vegetable gases are hurried along at a low level, and never, in any considerable quantity, reach the high-headed trees. The result is that they are robbed by their more humble and younger neighbours ; they soon die at the top, and, unless they can push a few branches lower down, cannot long survive.

The only plan at present apparent is to cut down all timber that shows any symptoms of decay at the top ; plant three young trees where one was cut down ; fence woodland so that cattle cannot get through it till a new growth of seedling wood has been obtained, and, where the owner can afford the time and outlay, set out a hedge-row of spruce on the side of the prevailing winds.

If we would secure a growth of tall, young, clear wood it must not only be shaded, but sheltered. Our main resource must consist in planting. Although very much more might be said on this point, still what everybody knows is no news.

What our Legislature should do in the way of promoting tree planting is not quite clear. It is evident that the bonus system will not have the desired effect. Would it not be well to make it a statutory obligation on everyone who owns an acre of clear land, in fee simple, to plant or cause to be planted a given number of trees? By this means, everyone who owns cultivable land would be obliged to contribute his proportion to the general good ; while by the bonus, or by the voluntary system, some would save their timber and plant more, while a next neighbor, more selfish, would destroy his timber and reap the benefit equally with those who do plant.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

Chips.

S. P. BLISS, of Tonawanda, reports not yet having found a large raft of long timber, of fifteen cribs, containing 88,000 feet, which went out of Au Sable river during the month of November. On the opening of navigation he will send parties along both shores of Lake Huron in search of it. The raft is valued at over $1,000.

LUNCH meetings are the latest feature on the Chicago Lumbermen's Exchange. The members get together on the invitation of some one member, and eat, smoke and talk. Says the *Lumberman* :—"The Saturday lunch was largely attended, the lunch was bountiful and appetizing, while the after discussion was particularly interesting and able.

LETTERS patent of incorporation are being applied for by the St. Lawrence Lumber Co., of Quebec and Levis, the applicants being G. B. Hall, E. J. Price, A. Thompson, J. Hamilton and P. P. Hall. The capital stock is to be $80,000, and the business to be carried on that of manufacturing various kinds of wooden goods, as well as the dressing of lumber, &c.

NOTICE has been given that application will be made, at the next session of the Dominion Parliament, for an Act to incorporate a company for the erection and maintenance of Booms and other improvements affecting the lumber interest on Rainy River, for the levying of tolls, dues and charges thereon, and for colonization upon the territory bordering on said river.

THE Minneapolis *Lumberman* says :—Men and provisions are being pushed forward, but teams are scarce and hard to find. We have had little flurries of snow lately over portions of the north-west, enough to whiten the ground, but not enough to cut any great figure in the prospective log crop. On the whole the Chippewa and North Wisconsin people are hopeful, and are now pitching in lively to secure a fair supply.

THE interior department at Washington has decided that Lombardy poplar, balm, and cottonwood are not timber in the meaning of the law relating to tree planting. The Olympia, W.T., *Transcript* states that a petition is now in circulation in Eastern Washington to get the decision amended so as to include these trees in the list of those lawful to plant. Many have set out Lombardy poplar in good faith, thinking that it was in compliance with the law, and they are now in danger of losing their claims.

THE *Timber Trades Journal* says that the gravest fears are being expressed at Greenock for the safety of the large timber laden ship *Eastern Empire*, which sailed from Quebec for Greenock early in November, and since leaving Bic, at the mouth of the St. Lawrence, a few days afterwards, has not been heard of. As all the other timber vessels which left the St. Lawrence subsequent to the *Eastern Empire* have now been accounted for, there is much reason to fear that she has broken up during the fearful gales which swept the Atlantic during the two last months of the past year.

ACCORDING to the Bangor *Commercial*, which is good authority, the lumber cut this winter on the Penobscot and tributary streams will be at least one-third lighter than that of last year. Then the season was a most favorable one. It lasted four months, during which time fully 150,000,000 feet was cut, nearly all of which was turned into the streams. The total cut this season is estimated at from 95,000,000 to 100,000,000 feet. Last season 40,000,000 feet was the cut on the Mattawamkeag, while this year it is not likely to be over 30,000,000 feet. Last season's cut on the west branch of the Penobscot was about 50,000,000 feet, and this season it will not exceed 35,000,000. Three-eights of the season is already gone, and until recently there has been but a very light fall of snow. At present the average snow depth is from fourteen to fifteen inches, and there is good hauling. There is a large overstock—some 60,000,000 logs—and if there shall be plenty of water in the spring, so that these, together with this season's cut, can be rafted to the mills, all will be well. Otherwise the stock for 1882 will be astonishingly light and prices will be high.

Novel Ending in a Bankruptcy Case.

OTTAWA, Jan. 27.—A dividend of one hundred cents on the dollar in all filed claims, with a surplus of about $20,000 after making due allowance for reserved claims and reasonable costs in the case, is a new item in the record of the Insolvent Courts. Four years ago the fine timber limits owned by Mr. John Lorne McDougall and Mr. Duncan Campbell McDougall, were taken possession of by their creditors, and the firm forced into insolvency. At this time a Mr. Frazer held a mortgage on the properties to the amount of over $40,000, and valued his security at $20,000, and the best experts say that had the estate been turned into a cash realization he could not have got more than $25,000 for the estate. Two banks held large claims against the concern, and so convinced were their representatives that the affair was "gone up," that they advised the assignee to hand it over to Frazer and relieve them of the liability. Mr. Bell, of Carleton Place, who was the party in charge, refused to do so. He had every confidence in the recuperative power of the country, and now has the satisfaction of knowing that he has enabled the estate to pay all its claims and have a handsome amount on hand for the benefit of its first owners.

IT is the intention of the Canadian Pacific Railway, late Canada Central, to appeal against the judgment rendered last week in the suit brought by Mr. Peter McLaren. The case in all probability will go to the Privy Council.

THE *Northwestern Lumberman* says that a number of camps in the Muskegon district, since the opening of the new year, have been broken up, though the freeze about January 7 checked the disposition to relinquish logging, and encouraged operators. Of course the larger operators, in favorable locations, continue to push work vigorously, by the aid of the modern appliances of tram and pole roads, trucks and sprinkled roads for short hauls. Snow, while yet not to be despised in the lumber woods, is not as important as it once was, capital and energy having made operators largely free from the effects of capricious weather.

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Market Reports.

MONTREAL.

From Our Own Correspondent.

FEB. 10.—Business has been about as usual for the season, but nothing extra is reported. Some Americans have been looking after lots here, but have not picked up much that is suitable, as their market is now supplied nearly as cheap as here, and so little difference in prices makes it hardly worth their while coming here, and they have a better assortment to choose from in their own markets than in this city. The tendency in prices here is upward, and we advance quotations for 1st quality pine, pine shipping culls, and basswood. Stocks of choice lumber here are small. Lately the weather has been good for work at the shanties, and lumber will be plentiful if only got well out. Rates of freight this summer by boat are expected to be low from Ottawa, about $1.25 per M. ft. The railway is now importing it at $1.10@$1.25, which will help to keep down prices. We now quote :—

Pine, 1st quality, ℔ M.	$35 00@40 00
Pine, 2nd " ℔ M	18 00@24 00
Pine, shipping culls, ℔ M.	14 00@15 00
Pine, cull deals, ℔ M.	8 00@12 00
Pine, mill culls, ℔ M.	5 00@ 8 00
Spruce, ℔ M	8 00@10 00
Hemlock, ℔ M.	8 00@10 00
Ash, run of long culls out, ℔ M.	16 00@18 00
Bass, " " ℔ M.	16 00@17 00
Oak, ℔ M.	35 00@45 00
Birch, ℔ M.	17 00@20 00
Hard Maple, ℔ M.	18 00@25 00
Lath, ℔ M.	1 50@ 0 00
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M.	2 00@ 0 00

CORDWOOD keeps dull and can now be bought about half a dollar cheaper than at the data of our last report, this remark does not apply to tamarac, which is firm and maintains its value. No green wood has been drawn yet, and this year's cut is not expected to be large. Dry wood is in good supply at the depot, and large importations are coming forward. We quote prices at the railway depot, ex cartage :—

Long Maple	$6 00
Short "	5 50
Long Birch	5 50
Short "	5 00
Long Beech	5 00
Short "	4 50
Long Tamarack	4 50
Short "	4 00

TORONTO.

From our own Correspondent.

FEB. 8th.—Lumber shipments to this city at present are dropping off rapidly in consequence of the action taken by the various railway companies in the matter of weighing all car loads of lumber. At this season of the year it usually appears in epidemic form, and doubtless may be partly accounted for through the fact that the various railway companies have more time to attend to weighing cars, as well as being desirous of supplementing their decreased earnings at this season, by charging excess upon all cars having more than 24,000 lbs. The railway companies seem to forget, or else ignore, the fact that what is for the interests of their customers is also to their advantage, and so they bleed them unmercifully. Of course there are two sides to this question, as well as to most others. The companies claim that if they do not take this step to protect their rolling stock they would soon have none to protect ; but still it is plain that selfishness has the most to do with it, or why not avoid all this bad blood being stirred up between them and their patrons, by consenting to carry by the thousand, instead of by weight, there would then be no inducement left for the shipper to overload, and it would tend to encourage the shipment of more of the coarser grades of lumber, such as hemlock, whereas, the present system of charging by weight is virtually prohibitive to shipping hemlock bill stuff. The writer had the opportunity of seeing one weigh bill for a car load of 2x4 hemlock, and the total charge was $51.75, and the value of the carload at this place was about $90, leaving the splendid margin of $38.25 for the manufacturer. Shippers would not complain so bitterly, I presume, if the N. & N. W. R. Co. would do the same as the G. T. R. Co., that is, charge the entire load at the schedule rates, but the former company charge on all excess as follows :—On the first ton of over-weight, single rates, and on all over that double 4th class rates. There is no question if our lumbermen had only vim enough to test this question no such rates as that just named could be collected, unless means were furnished shippers to weigh all cars at the point of shipment, but there is no reason why this matter could not be amicably arranged, if the company would not adopt that stand-of-at-arm's-length tone, which ill becomes a company dependent upon the lumber carrying for three-fifths of their entire revenue. Lumbermen are noted for their forbearance and patience, but they are somewhat riled just now, and if they will only work shoulder to shoulder, this matter can soon be solved.

The various yards are doing a quiet trade at present, and none of them are at all overstocked, and prices remain firm at last quotations. Dry stuff is rapidly diminishing, and by the opening of spring but little dry lumber will be left on this market. There has been but little diminution in building this winter, so far. Of course it cannot be pushed as rapidly as during the summer months, still there is a large number of houses in course of erection, and many more just started. The sizes and lengths of dimension stuff that are the most difficult to obtain just now, are 2x8 18ft. and 2x4 all lengths. Lath are also hard to get at any price, and will likely continue scarce until the opening of the spring.

In your last issue you state the probable quantity taken away by farmers from the city's consumption as being 100,000 feet, it should have read 1,000,000.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths.	12 00
" stocks	13 00
Scantling and joist, up to 16 ft.	13 00
" " " 18 ft.	13 50
" " " 20 ft.	14 00
" " " 22 ft.	13 50
" " " 24 ft.	14 00
" " " 26 ft.	15 50
Scantling and joist, up to 28 ft.	16 50
" " " 30 ft.	18 00
" " " 32 ft.	20 00
" " " 34 ft.	22 50
" " " 36 ft.	25 00
" " " 38 ft.	30 00
" " " 40 to 44 ft.	35 00
Cutting up planks to dry	20 00
" boards "	18 00
Sound dressing stocks.	16 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	14 00
1½ " " dressed	25 00
1½ " " undressed	14 00
1 " " dressed	20 00
1 " " undressed	15 00
½ Beaded Sheeting, dressed	20 00
Clapboarding, dressed	12 50
XXX sawn shingles, ℔ M.	2 80@3 00
XX. sawn shingles	2 75
Sawn Lath	1 80

OTTAWA.

From Our Own Correspondent.

FEB. 9th.—Little is at present transpiring at the head offices of the lumbering firms in this city. No sales have been reported lately, and few will now be made until the opening of the spring trade in March. The necessary supplies and men having already been forwarded to the shanties of the different firms, a quiet spell will prevail until the beginning of preparations for the drive. Advices from the shanties are not altogether encouraging, the recent

HEAVY SNOW FALLS

having seriously interfered with the progress of work. This is a remarkable change from former reports. Until a few weeks since grave fears were entertained of an insufficiency of snow, but the state of things is now quite the reverse. On the south side of the Ottawa lumbermen have no great aeason to complain. On the north side, however, there is a great deal too much snow. On the Kippewa for the past two weeks contractors have experienced great difficulty in having their supplies conveyed to the

SCENE OF OPERATIONS,

The woods have been blocked, and in some instances operations have had to be completely suspended. How long this state of affairs will last it is difficult to say. The estimated cut of logs on the Ottawa and its tributaries this winter is about one and a quarter millions. This includes merely the logs cut in the immediate vicinity of this city, irrespective of the quantities taken out for manufacture at the mills at Arnprior, Braeside, and others in the Upper Ottawa district. It will be observed that this estimate about equals the

CUT OF LAST YEAR,

but owing to the unprecedented lowness of the water the past season, not less than one million logs were stuck in the various streams in that district. In addition to the actual cut of this season, the quantity to be manufactured during the coming summer will include this one million left over from last season, all of which it is confidently expected will be floated down successfully to its destination in the spring. Everything points to the probability of

HIGH WATER

in the streams and lakes in the lumbering districts. It is said that all the swamps are full of water, and as many and valuable improvements have been made as to navigation, it is safe to assume that there will be no repetition of the detrimental effects of last season's low water.

CHIPS.

John P. Mills recently purchased James Findlay's limits on the Black River, paying therefor $60,000. The limits comprise 100 square miles.

Considerable trouble is experienced this season with teams in the woods. Wages advanced about a month ago. In some shanties this fact having been heard of, and the demands of the parties having been refused, a strike was resorted to. Wages at present paid are from $1.50 to $2.00 per day.

The Scottish Lumbering Co. have fourteen shanties in operation this season on the Upper Ottawa, employing about 700 men. The Company will take out in the neighbourhood of 125,000 logs on the Kippewa, and 25,000 on the Black River. They will take out about 1,200,000 feet of square timber.

Between seventy and eighty shipbuilders are employed in the yards opposite this city on the Hull side, constructing barges, tugs and steamers for the next season's navigation. All these will be engaged in the lumber trade.

The patent "Kenny Swedge," is being placed in a number of mills in the Chaudiere, for trial next season. All the mills are now undergoing repairs in preparation for the coming busy months.

LONDON, ONT.

From Our Own Correspondent.

FEB. 10.—I cannot give as favorable a report of the lumber market here as I did in my last. There is a desire on the part of merchants to make concessions on the late advance, and where cash transactions are made the old rates are invariably accepted, but booked accounts remain firm at my last quotations. There is a general appearance of lassitude throughout the trade in this city. Little stock is coming in, and the demand is not what would have been expected. One reason for this may be the very open winter, and the opportunity to "make shift" by those who needed lumber in the event of an ordinary season. Building in this city will be very brisk this spring, as builders are well engaged ahead, and architects are, and will be, well employed for many months. Though prices are somewhat easier, I cannot give you any reliable lower quotations, and my list must remain the same as in your last issue.

QUOTATIONS.

Mill cull boards and scantling	$11 00
Shipping cull boards, promiscuous widths.	12 00
" 10 and 12 in. stocks.	12 50
Common boards, promiscuous widths.	14 00
Scantling and joist, up to 16 ft.	15 00
" " " 18 ft.	15 50
" " " 20 ft.	16 50
" " " 22 ft.	17 50
" " " 24 ft.	19 00
Common stocks	15 00
Common 2 in. plank	14 00
Cutting up plank and boards	19 00
Sound dressing stocks.	18 00
Clear and picks	28 00
Three uppers, Am. inspection.	35 00
½ inch dressed and matched flooring	21 00
¼ " " " "	21 00
1 " " " "	21 00
XXX sawn shingles, ℔ M.	3 00
Lath per 1000 feet.	4 50@5 00

ST. JOHN, N. B.

From Our Own Correspondent.

FEB. 7.—About the only noticeable occurrence bearing on the wood trade since last report is the very severe snow storm of Sunday last, exceeding in severity anything of the kind we have experienced for many years. During the fore part of the winter the logging operations of our lumbermen were greatly impeded for want of snow ; latterly, however, since snowing has fairly commenced, the supply is so liberal as to cause fears of becoming troublesome in the other extreme, so that altogether the supply of lumber the coming season cannot be other than moderate.

Taking these circumstances into account in connection with the prospects of the markets abroad, there is every reason to count on a very profitable business being done, in the deal trade especially, this year, which should stimulate our operators to do their best, as an over supply for the present year appears now quite impossible.

The following extracts from the London *Timber Trades Journal*, of 21st January, are very strong in support of the views above expressed :—

"In point of fact we do not remember the commencement of any year on which we could venture to speak with less reserve of the good prospects of the trade than we feel justified in doing now." * * * * * * *

"Assuming that active operations will be carried on successfully on both sides, there is nothing likely to operate unfavorable to a good spring trade for all."

FREIGHTS.

We have no new feature in the freight market to report. The latest charters we hear of are :—*Syringa*, 604 tons, for Cork, at 60s., and *Grace E. Cann*, 683 tons, direct port, East Coast of Ireland, at 61s. 3d.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	2,232,000 Sup. feet.
" United States	1,269,000 "
" West Indies	560,000 "

The number of sugar box shooks shipped for Cuba is as follows :—

Sept. 1 to Jan. 21	53,745
Since	9,300
Total	63,045

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Souvenir, 828, Liverpool.
Gettysburg, 1,015, Adelaide, for orders.
Memory, 409, Spain.
Fidelia, 450, ——
Buteshire, 967, ——
Alfarin, 446, ——
Syringa, 604, Cork.
Grace E. Cann, 683, E. C. Ireland.

CHICAGO.

The *Northwestern Lumberman* says that business at the wholesale yards in this city has made considerable improvement within the past few days. As a favorable sign one dealer reports the constant and liberal receipt of orders from various western points. The same dealer makes a very encouraging showing for January, having shipped during that month 450 cars—an amount that would appear well on his books for any month in the year. February promises a brisk trade, the opening week of the month bringing an increase of orders to nearly all the yards. The shipments of the week ending February 2, show an increase of about 5,000,000 feet over the corresponding period last year.

The feeling in regard to prices is still very firm, and sales are being generally made up to the full list rates, and the prospect of an advance is being considered.

It is now quite apparent that the log crops in Michigan, Wisconsin and Minnesota, will fail to come up to the intended cut by 20 to 30 per cent. It is reasonable to conclude that this fact will have some effect on the manufacture of lumber next season, and also in prices. That there will be a large amount of logs put in cannot be doubted, and if the demand for lumber were only moderate, probably the percentage of shortage would not be noticed. But when it is considered that the demand has been well sustained throughout the winter, and that many mills have continued to run, some of them night and day, to satisfy the railroads and other requirements, that stocks are much reduced and broken in assortment, it may be inferred that manufacturers will fix an enhanced value on their diminished stocks of logs, and will not crowd their product on the market to such an extent as they have in former years. The result on prices is not hard to guess.

Receipts and shipments of lumber and shingles from January 1, to and including Feb. 2nd, 1882 ;—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882...19,410,000	6,582,000	87,916,000	31,660,000
1881...18,043,000	6,911,000	65,399,000	32,100,000
Inc..	1,307,000		22,517,000	
Dec..		329,000		440,000

For an entire week we have no arrivals or clearances by lake to report, so that with the close of January navigation may be said to have finally come to an end.

ALBANY.

JAN. 20.—Quotations at the yards are as follows :—

Pine, clear, ₱ M.	$53 00@63 00
Pine, fourths	48 00@58 00
Pine, selects	43 00@53 00
Pine, good box	19 00@31 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in	00 26@00 28
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M.	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1½ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@18 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1½-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M.	35 00@40 00
Ash, second quality, ₱ M.	25 00@30 00
Cherry, good, ₱ M.	60 00@70 00
Cherry, common, ₱ M.	25 00@35 00
Oak, good, ₱ M.	38 00@43 00
Oak, second quality, ₱ M.	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M.	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M.	25 00@28 00
Chestnut, ₱ M.	35 00@40 00
Shingles, shaved, pine, ₱ M.	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M.	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 00

BOSTON.

The *Journal of Commerce*, of Feb. 4th, says the firm tone referred to last week still continues and there is a very satisfactory demand for both building and manufacturing purposes. There is also a very good export inquiry. From the south and west reports continue to be received of the inability of handlers to fill orders, owing to short supplies and poor facilities for shipping stock. All of the mills, both in the east and west, are fully employed and are working up the logs as fast as possible. In the New York market trade is reported as good, with prices firm and a short supply of desirable grades. From all points come the most encouraging reports, and it is universally agreed that trade thus far has been "immense," considering the season of the year. The loggers at the west have been delayed a great deal by unfavorable weather, but the latest reports say that sufficient snow has fallen to allow operations to go on in a more satisfactory manner than for some weeks past. Hardwoods are firm and in good demand. The following are car load prices :—

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$40 00@45 00
Common	17 50@20 00
Culls	11 50@12 50

GLASGOW.

From Singleton, Dunn & Co.'s annual timber circular, dated January 7, 1882, we learn that the imports of wood goods into the Clyde during the year 1881 were as follows :—Waney board 9,560 logs, yellow pine 32,661 do., red pine 6,241 do., oak 6,325 do., elm 4,855 do., ash 2,688 do., birch 2,889 do., sundry hardwoods 3,645, deals, battens, etc., 424,235 pieces, pine and spruce boards 1,437 pieces, oak plank 16,135, pipe staves 16,135, puncheon staves 163,699. The imports all round were slightly less than in 1880. The following quantities in cubic feet of Quebec timber were in Clyde ports on December 31, 1881 :—Waney board, 767,531 ; yellow pine, 1,128,464 ; red pine, 372,366 ; white oak, 348,577; rock elm, 244,781 ; birch, 41,570 ; spruce deals, 79,030. The circular says :—"Business during 1881 was fairly good, and the consumption in the aggregate fully one million cubic feet over that in 1880. The imports during the year of Canadian goods were nearly the same as in 1880; while in pitch pine there was an enormous increase. The consumption of Canadian timber was less over all than it was in 1880. There is a large increase in the items of deals. This increase is mainly of lower port spruce and pine. Quebec deals have not gone into consumption so extensively as was anticipated. The consumption of pitch pine was fully half a million feet ahead of the consumption the previous year, and this increase to a considerable extent explains the falling off in the absorption of square white pine and red pine. Quebec pine, of the various qualities, are only about half what they were a year ago. This deficiency is not compensated by any substantial increase in lower port pine deals, which are only a few thousand pieces in excess of the stock at the same date last year. In red pine deals the stock is just about one-third what it was twelve month ago."

LONDON.

The *Timber Trades Journal* says that the importation from Canada to London last year was :—

	Pieces.
Yellow pine deals and battens, from the St. Lawrence	1,673,500
Spruce deals and battens, from the St. Lawrence	1,989,000
Spruce deals and battens, from New Brunswick	1,074,500
Total	4,737,000
Against in 1880 :—	
Yellow pine	1,805,000
Spruce	2,977,000
Total	4,782,000

Showing a decrease in the importations during the last twelve months, on Colonial deals and battens, of only 45,000 pieces ; so that the imports may be reckoned, as far as the effect on prices is concerned, about the same.

Of timber, Canada sent to this market last year :—

Yellow Pine	5,099 loads.
Red "	1,768 "
Elm	2,086 "
Ash	2,282 "
Hickory	182 "
Oak	3,004 "
Birch	4,324 "

The importation of oak has been a full one, notwithstanding the large stocks that were in the docks at the beginning of the year, and prices did not share last season in the almost general advance. Birch timber, however, owing to the stocks being greatly reduced, showed considerable improvement as the season drew towards its close, assisted by the moderate importation and the large unreserved sales that were held during the summer. The low price at first realized, induced by the excessive import of the previous year, proved attractive to buyers from all sides, and we have now not more than a fair average stock in hand to meet the spring demand.

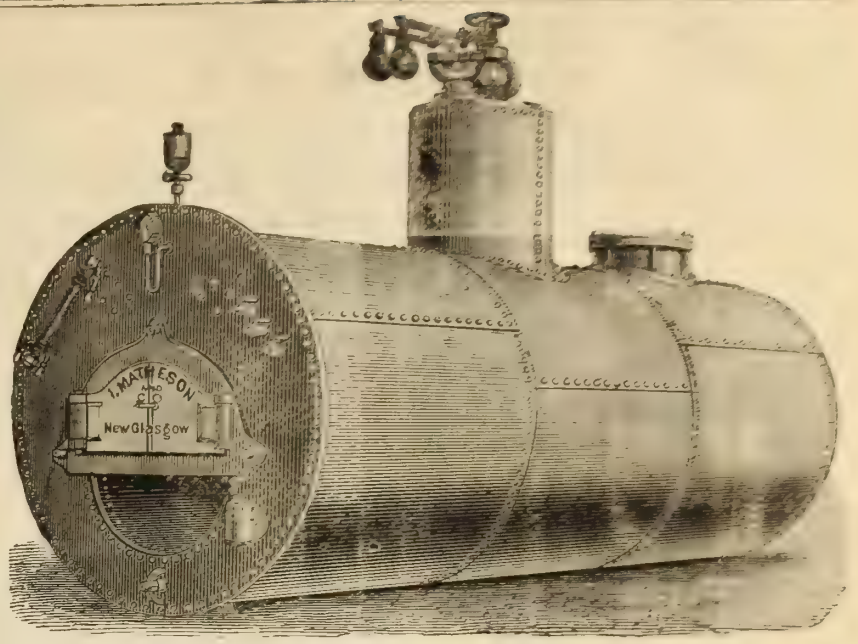
In 1880, Canada sent to London :—

Yellow pine timber	4,357 loads.
Red " "	992 "
Elm	1,991 "
Ash	2,719 "
Hickory	311 "
Oak	3,738 "
Birch	8,617 "

With the exception of ash, oak, and birch, the Colonial import of timber for 1881 has been heavier than that of the preceding year.

TRADE WITH GREAT BRITAIN.

The *Timber Trades Journal* says the increasing influx of United States timber is the principal cause of the difficulty which our own North American possessions have to contend with in getting remunerating prices for their wood production in this country. There has been a large increase in the importation of pitch pine, and a proportionate decrease in Canadian pine ; and now the importation of oak from the States cut to scantling is supplanting that from Canada in the log, and is sold even at lower prices. This seems a paradox, but on reflection it is accounted for. Wood is more easily handled in sawn scantling than hewn timber, and stows closer, and it is carried over sea at the freight of deals, also smaller and less perfect trees are convertible to this fashion of wood, and what is lost by the sawing is made up by these advantages and the saving in freight and waste. Scantlings and deals are brought over at about 12 to 15 per cent. less carriage than square timber. Canadian houses will doubtless soon put themselves on a level, as regards the conversion of oak, with their enterprising neighbours, but the low price of pitch pine and its ample dimensions and length rendering it applicable to almost all the purposes of Canadian pine will not be so easily got over. The importation to Liverpool this year was smaller than that of 1879.



ACADIA FOUNDRY.
I. MATHESON & Co ENGINEERS & BOILER MAKERS, NEW GLASGOW, N.S.

Liverpool Stocks.

	1st Jan. 1881, ft.	*2nd Jan. 1882, ft.*
Quebec Square Pine	869,000	545,000
" Waney Pine	303,000	552,000
St. John's Pine	21,000	32,000
Other Ports Pine	43,000	37,000
Red Pine	63,000	26,000
Oak, Canadian and American	524,000	347,000
" Planks		92,000
N.B., &c., Spruce Deals	30,641	15,935
" Pine	1,856	718
Quebec Deals	11,095	7,832

BRITISH TRADE RETURNS.

The following are the official returns for the month of December and the year 1881 :—

MONTH ENDED 31ST DEC.

	QUANTITY.	VALUE.
Timber (Hewn).	*Loads.*	*£.*
Russia	15,190	32,928
Sweden and Norway	45,656	73,889
Germany	35,013	91,398
British North America	11,060	50,277
Other Countries	25,020	54,085
Total	131,939	302,577
Timber (Sawn or Split, Planed or Dressed).		
Russia	74,123	184,261
Sweden and Norway	137,545	363,789
British North America	51,162	135,120
Other Countries	17,740	53,467
Total	280,570	736,637
Staves (all sizes)	11,414	75,524
Mahogany (tons)	4,541	43,369
Total of Hewn and Sawn	412,509	1,039,214

TWELVE MONTHS ENDED 31ST DEC.

	Loads.	*£.*
Timber (Hewn).		
Russia	229,914	454,377
Sweden and Norway	600,002	941,720
Germany	224,205	674,220
British North America	289,514	1,291,096
Other Countries	513,064	1,429,884
Total	1,866,299	4,791,297
Timber (Sawn or Split, Planed or Dressed).		
Russia	930,136	2,259,756
Sweden and Norway	1,422,479	3,407,984
British North America	994,149	2,489,989
Other Countries	322,092	1,032,390
Total	3,668,847	9,190,119
Staves (all sizes)	118,664	586,655
Mahogany (tons)	42,214	388,476
Total of Hewn and Sawn	5,535,146	13,981,416

HAD SUFFERED MANY PHYSICIANS and grew no better but rather worse. Mr. D. H. Howard, of Geneva, N. Y., after dismissing his physicians, tried nearly half a gross of the various blood and liver remedies advertised, no benefit ; when one bottle of Burdock Blood Bitters cured him of Paralysis and General Debility. At the advanced age of 60, he says he feels young again, and is overjoyed at his wonderful recovery.

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Chipman, Renaud & Co.
MANUFACTURERS OF
LEATHER BELTING,
FIRE ENGINE HOSE
LACE LEATHER, &c.
124 & 126 Queen St.
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HOP BITTERS.
(A Medicine, not a Drink,)
CONTAINS
HOPS, BUCHU, MANDRAKE, DANDELION.
AND THE PUREST AND BEST MEDICAL QUALITIES OF ALL OTHER BITTERS.
THEY CURE
All Diseases of the Stomach, Bowels, Blood, Liver, Kidneys, and Urinary Organs. Nervousness, Sleeplessness and especially Female Complaints.
$1,000 IN GOLD.
Will be paid for a case they will not cure or help, or for anything impure or injurious found in them.
Ask your druggist for Hop Bitters and try them before you sleep. Take no Other.
D. I. C. is an absolute and irresistible cure for Drunkeness, use of opium, tobacco and narcotics.
SEND FOR CIRCULAR.
All above sold by druggists.
Hop Bitters Mfg. Co., Rochester, N. Y., & Toronto, Ont.

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AUCTIONEER AND COMMISSION MERCHANT

81 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. ☞No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

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Manufacturers of

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Fire-Engine HOSE,

Lace Leather,

Mill Supplies, &c.

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Wrought Iron Shanty Cook Stoves

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use.** These Stoves are made of **Heavy Sheet Iron**, the top and lining of the fire-box being of **Heauy Cast Metal** and all the connecting parts of substantial **Wrought Iron Work.** The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 24 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business. Very truly yours, GEO. HILLIARD, M.P.

EVERY STOVE GUARANTEED

All the necessary TINWARE and CUTLERY for Shanties supplied at the Lowest Prices. 1L7

ADAM HALL, Peterborough.

MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.

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COTTON BELTING, for Flour Mills. &c., Superior Quality.

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Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 1L21

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Men's Flannel Shirts and Durable Underclothing.

ORDERS SENT WITH MONEY PROMPTLY ATTENDED TO.

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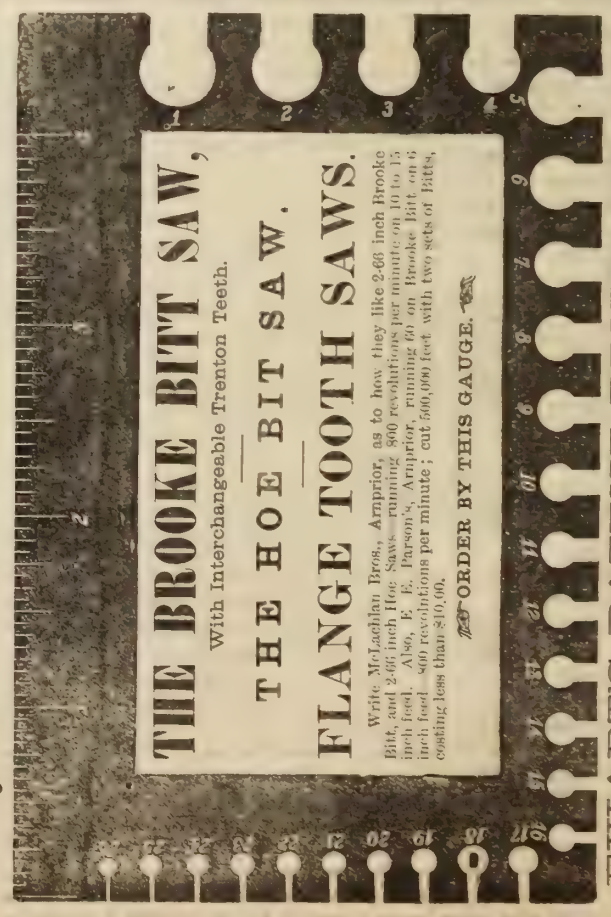
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With Interchangeable Trenton Teeth.
THE HOE BIT SAW.
FLANGE TOOTH SAWS.
Write McLachlan Bros., Arnprior, as to how they like 2-66 inch Brooke Bitt, and 2-66 inch Hoe Saws running 800 revolutions per minute on 10 to 15 inch feed. Also, E. E. Parson's, Arnprior, running 60 on Brooke Bitt on 6 inch feed 400 revolutions per minute; cut 500,000 feet with two sets of Bitts, costing less than $10.00.
☞ORDER BY THIS GAUGE.☜
EWART'S PATENT DRIVE CHAIN
FOR SAWDUST CARRIERS, LIVE ROLLS, TRIMMERS and REFUSE CARRIERS.
BROWN'S PATENT SPALT MACHINE
Cuts three perfect Shingles out of Inch board. Cuts Shingles out of slabs and all manner of refuse. Will soon pay for itself around any large Mill.
AUTOMATIC GANG TRIMMERS, SIX SAW EDGERS, and the most improved Saw Mill Machinery. PORTABLE SAW MILLS OUR SPECIALTY.
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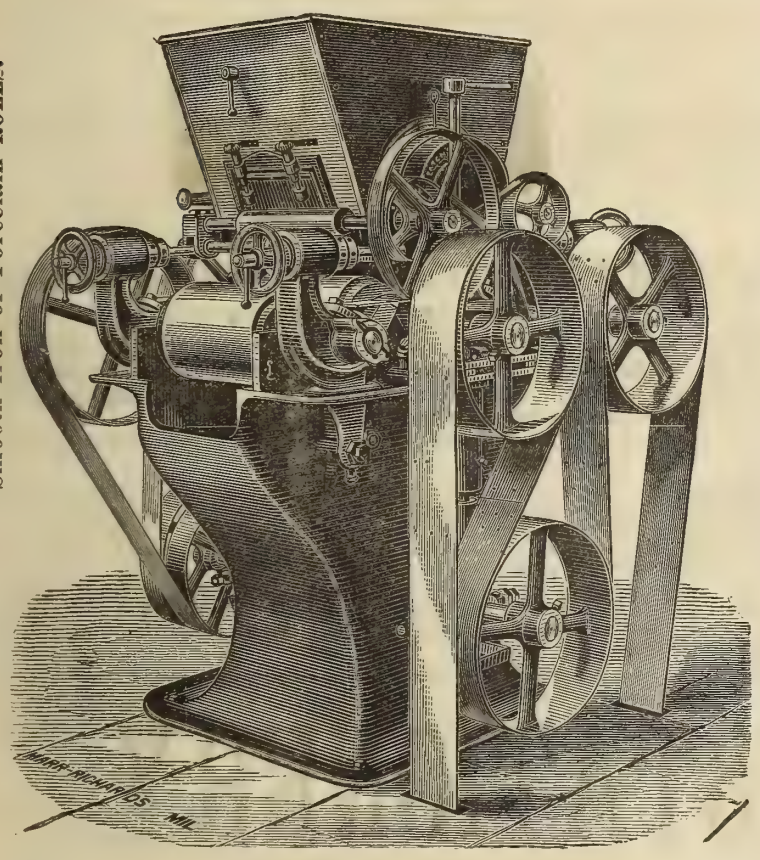
GRAY'S PATENT
NOISELESS ROLLER MILL

A Model of Perfection!
Every Mill a Success!

CORRUGATIONS of all Descriptions.
Smooth Iron or Porcelain ROLLS.



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Automatic Lubrication of Principal Bearings.
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Differential Speed always insured.

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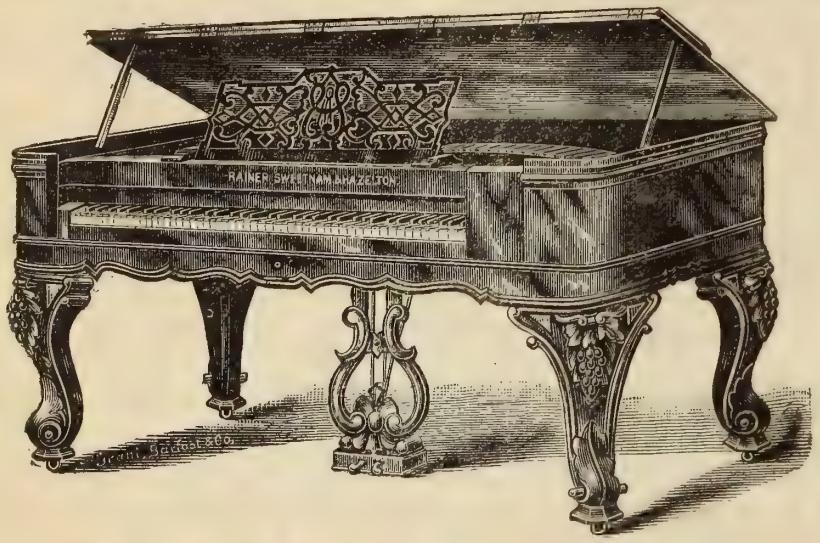
HON. JNO. McMURRICH, Vice-Pres. A. F. JONES. Secretary-Treasurer. 1-13



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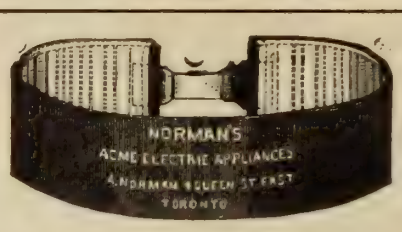

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Ask for Norman's Electric Belts and you will be safe against imposition, for they will do their work well and are cheap at any price.

A. NORMAN, Esq., WATERVILLE, N. B.
Dear Sir,—Please send me a waist belt. Enclosed find price. Head band I got for my wife has almost cured her of neuralgia. Yours truly, C. L. TILLEY.

Numerous of such testimonials can be seen at my office, proving that they are doing a good work and worthy the attention of all sufferers. Circulars free. No charge for consultation.

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"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President. JAMES T. BARNARD, Hamilton, Secretary-Treasurer. SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH,
GALT.

Messrs. R. H. SMITH & CO.,
ST. CATHERINES.

JAMES ROBERTSON, ESQ.,
MONTREAL.

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TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ,
PETERBOROUGH,
Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON,
DESERONTO,
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1111

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

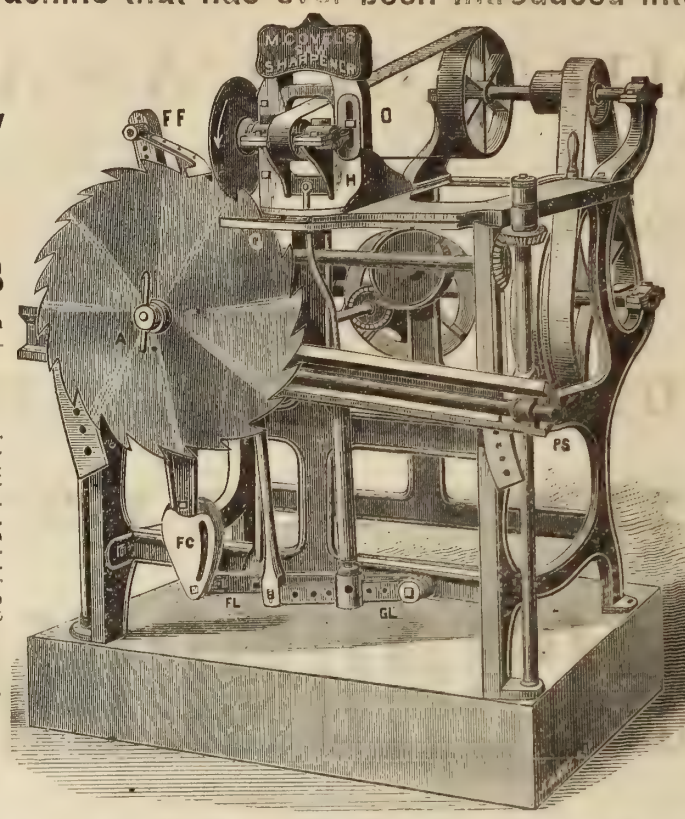
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.

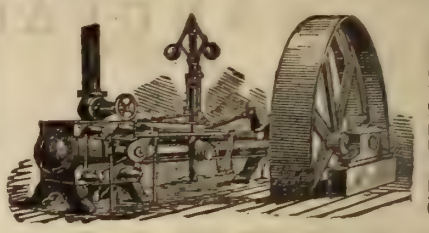


MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS

CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1ltf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

EMERY WHEELS FOR SAW GUMMING!

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

$8\times\frac{1}{4}$, $8\times\frac{3}{8}$, $8\times\frac{1}{2}$ } $\frac{3}{4}$ in. hole. $10\times\frac{1}{4}$, $10\times\frac{3}{8}$, $10\times\frac{1}{2}$, $10\times\frac{5}{8}$ } $\frac{3}{4}$ in. hole. $12\times\frac{1}{4}$, $12\times\frac{3}{8}$, $12\times\frac{1}{2}$, $12\times\frac{5}{8}$, $12\times\frac{3}{4}$, 12×1 } Holes, $\frac{3}{4}$, $\frac{7}{8}$ and 1 inch.

Probably more wheels $12\times\frac{3}{8}$, $12\times\frac{1}{2}$ and $12\times\frac{3}{4}$ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to $24\times1\frac{1}{2}$. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1tS

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania

CANADIAN TRADE SPECIALLY SOLICITED.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

VOL. 2. PETERBOROUGH, ONT., MARCH 1, 1882. NO. 5.

LUMBER LOGIC.

The United States census bureau having set at rest with its reports of the amount of standing imber the fears of a pine famine which have been excited of late by ill-advised calculations, the trade may settle down to a practical consideration of the situation and calmly determine at what rate of consumption the best results may be secured from their investments. We have, occasionally, in a facetious way, expressed the right of the present generation to cut and slash away at the forests while they could, as the only means of securing the greatest return for their investments, well knowing that would be the course pursued, whatever advice may be given. At the same time we have always believed and tried to teach that the utmost economy in the use of the timber should prevail. It is a fact, more readily recognized by others than by themselves, that the American people are careless and extravagant in the use of timber. Knowing that, although there is yet standing in the forests of this country a vast amount of timber, there is none too much, and that the future welfare of mankind on this continent depends greatly upon the amount of desirable timber this generation shall be able to leave, and the amount of new growth that shall be started, an intelligent and practical system of forestry should be inaugurated by the state and national governments, while at the same time a more economical and considerate use of the product of the forests is entered upon by the eople themselves, and tree culture is encouraged and pursued.

"What of the winter," is a question started by the reports which come in from nearly all quarters. To the extent that snow and ice are relied on to facilitate the movement of logs, it may be said that the conclusions are not very favorable for a large stock of logs. The general testimony of those in the woods is, that the crop of logs banked this winter will fall a good way below the crop of last winter in quantity. The lumber producing regions which have been blessed with snow and ice are an exception, and the logs banked have been got to the grounds by real hard tugging. The consequence is, that the cost has been increased to a considerable extent. Advices from Wisconsin are to the effect that the indications are decidedly unfavorable for a full cut of logs, and the same can with certainty be said in Michigan.

As to the markets, it may be said that the firmness which marked the closing weeks of the season of 1881 has been projected into the new year, and from every direction favorable reports are received. The eastern markets are steady and the movement of timber and lumber is decidedly active. In Chicago, too, a good deal of stability is felt, and the Lumbermen's Exchange has decided to allow the January list to stand for February, with the exception of advancing common boards fifty cents to one dollar per thousand. The prospects of the log crop excited a good deal of attention, and a divided opinion prevailed. On the Saginaw River there is no special change to note, but prices remain firm and transactions active.—*Lumberman's Gazette.*

OUR FORESTS.

These, with our mines, are the chief, indeed the only, sources which we have to rely upon for an increase of Provincial revenue. It is therefore a matter of great importance that they should be carefully looked after with a view to their protection and development.

By "looking after," in the case of our forests, we mean by the active out door supervision of some competent man, who should be able to point out the different kinds of land, namely, that which is fit and proper for settlement purposes and that which should be reserved for the uses of the lumberman alone.

It seems to be very generally conceded by those best qualified to judge, that a vast amount of damage has been done to the public demesne by forest fires started by settlers in clearings made in or in the neighbourhood of spruce or pine lands, and it is in land of that character that fires have proved to be the most destructive. We have talked with a person well conversant with our timber lands, and he informs us that many, very many, of our settlements which have had much public money spent on the roads and bridges leading to them would have been to-day of much more value and the settlers themselves would in all probability have been in better circumstances if no attempt had ever been made to clear an acre of lands in them.

In order to determine the character of land for settlement purposes, a considerable amount of knowledge is requisite, and it is certainly unwise for the Province to spend money as it does yearly in opening up roads for the purpose of bringing in settlers to burn up and destroy its very best property, while these very settlers themselves are injured by the act of placing them upon poor lands. There must be certainly yet a sufficient quantity of good land in the Province upon which we can place intending settlers. The present system of settlement without proper supervision, our informant tells us, costs the Province yearly many thousands of dollars which, he says, might just as well be saved to the country.

Another matter in connection with our forests also demands attention—it is the rewooding and protection of burnt districts which are growing up in young timber. Although nothing can perhaps be done in this matter at present, it is well that, looking to the future, we should begin to collect information about the growth of young woods, and ascertain the length of time which they require to attain a size which will render them of marketable value, and also as to how these growing woods can best be protected from the destructive effects of forest fires, either by leasing at low rates to individuals who shall be bound to protect them under certain penalties, or by some other methods which investigation may prove to be most necessary and proper.

We daily hear of manufactories being started for the preparation of pulp from small woods, for the making of spools, etc. It is well that the public should be kept accurately informed as to where these small woods can be found sufficiently near the sea or railroad to be made use of. This information might be embodied in a yearly report, which being circulated abroad would offer a ready means of acquiring knowledge to such as may be desirous of obtaining information about our woods.—*St. John, N. B., Sun.*

CAN IT BE ACCOMPLISHED?

The reproduction of the timber which is being consumed in this country and in Europe is a subject which is engrossing the attention of not only the statesmen, but the press of the United States, and in fact the whole world. The subject is fraught with momentuous consequences, not only to the people of the present day, but to the generations which shall succeed us. It is a very knotty problem, however, the satisfactory solution of which has not yet been accomplished. Many suggestions have been presented, which may be considered good, bad and indifferent. Conventions have been called and meetings held to take into consideration this important question and endeavor to devise some remedy for the evil which is presenting itself with so much force—the rapid destruction of our forests. Not only is this destruction being accomplished by the removal of the timber which is utilized for the requirements of the people, but the forest fires are also aiding in the work. If the loss of timber were the only loss in this direction it would be less serious, but it affects the climate, agriculture, rainfall and much else, as has been amply demonstrated, not only theoretically and scientifically, but practically. But the important question is not the destruction of timber, but its reproduction. Of course much can be accomplished in adopting measures to prevent its destruction, either wantonly or by the numerous forest fires by which it has been devastated heretofore; but its reproduction is a vast and gigantic undertaking, from which those engaged cannot hope or expect to receive any benefit, and their reward lies solely in the satisfaction and knowledge that by their efforts provision has been made for the prospective wants of future generations. This reproductive work is not to be accomplished in a day or a year; but it takes nearly a century to produce a forest; and hence the difficulty surrounding the question. Suggestions have been as numerous as blackberries, but many of them have been fallacious and not susceptible of accomplishment. Bonuses have been suggested in the shape of remittances of taxes for tree planting, which is a good idea so far as it goes; but it will require some systematized endeavor and action on the part of the people, the state and the nation, for the accomplishment of so vast an undertaking as even to reproduce the present consumption of timber by the actual demands of the mechanical requirements of the age. If some of the conventions which have been called, therefore, shall succeed in the development of some plan which shall be productive of such great and grand results, an inestimable boon will have been conferred on future generations which is almost beyond the scope of comprehension. The task seems almost a hopeless one however, because of the disposition evinced on the part of the people to take advantage of present chances and allow the future to take care of itself. United action, however, and the concentrated thought of the writers and statesmen of the country whose attention is being brought to the consideration of this momentous and important subject may yet succeed in devising some method which shall result in the accomplishment of the object sought; but like all subjects which is completely void of selfish considerations, it is likely to be a movement of slow growth.—*Lumberman's Gazette.*

MAMMOTH BELTING.

We were yesterday shown some mammoth leather belting which is being manufactured by Messrs. Robin & Sadler, 594, 596 and 598 St. Joseph street, for the Stormont Cotton Company, the Quebec Lumber Company and Messrs. A. W. Ogilvie & Co., of Winnipeg, Manitoba. The order from the Stormont Cotton Company amounts to about $7,000, and includes a 36-inch double driving belt, 143 feet in length, and weighing about 1,000 pounds, and two 24-inch driving belts, 151 feet in length, which are intended to run side by side on a 50-inch pulley, besides 18, 15 and 12-inch and a large number of smaller belts. The order from Messrs. A. W. Ogilvie & Co., is for their new mill in Winnipeg, Manitoba, and is for nearly $5,000 worth of belting. The order includes a 36 inch double driving belt, 112 feet in length, a 24-inch double driving belt over 100 feet long, and a large number of smaller ones, both single and double. The belts that are being manufactured for the Quebec Lumber Company, Etchemin, Que., include a very fine 28-inch double driving belt for the main driving wheel of the Company's saw mill. Six of the largest of these belts were weighed, when it was found that they were nearly two tons in weight. The general appearance of the workmanship of these belts reflects the greatest credit on the firm, who are doing a large and thriving business in leather belting.—*Montreal Herald.*

RIVER IMPROVEMENTS.

A Bill has been introduced in the Ontario Legislature by Mr. Boulter to authorize Messrs. Gilmour & Co. to make certain improvements in the River Moira, to enable them to bring saw logs to their mills at Trenton. It is as follows :—

1. "The said Gilmour & Company *shall*, in the said River Moira, where it passes through the said townships and lands above in the preamble to this Act mentioned, have the right and full power to erect and maintain piers, dams and works such as may be requisite to enable them and all others using the said river for the navigation of saw logs, timber and other material, to float the said logs and material down the said river : Provided always that each of the said dams respectively shall be provided with a slide and the appliances now required by law in the case of mill dams on streams used for the purpose of floating down logs and timber."

2. Provides for detailed plans and specifications, and for the consent of the municipalities.

3. Provides for filing the plans with the Commissioner of Public Works and advertising, one month after which the works may be proceeded with.

4. Gives power to make surveys.

5. "For all lands flooded or injured by reason of the said dams or works and which have been patented or agreed to be sold by the Crown, the said Gilmour & Company, their heirs or their assigns, shall, to the owners, tenants and lawful occupiers thereof, make compensation for the injury, if any, done to said lands, such compensation to be ascertained as hereinafter provided; but in cases where the patents hereafter to be issued by the Crown provide that no compensation shall be made for such injury, the patentee shall have no claim on said parties owning said dams and works, or any of them, their heirs or assigns."

6. Provides that there shall be no compensation as to lands now vested in the Crown.

7. 8. 9. 10. Provides for arbitration for compensation for damages to land owners, etc.

11. "No such dams or works shall be maintained, and no powers hereby given shall be exercised, in such a manner as to injure any millowner or manufacturer in respect of any mill or manufactory lawfully existing either below or above any such dam, and using the said river as a water power : Provided, however, that all statutory rights, if any, acquired under the Statute of Limitations or otherwise against any such manufacturer or millowner to use the said river shall not be prejudiced, interfered with, or taken away by anything in this Act contained : Provided always that any powers or rights conferred by this Act shall be subject to and not interfere with the powers vested in the Commissioner of Public Works, under chapter thirty of the Revised Statutes of Ontario, and shall also be subject to sections nine, ten, eleven and twelve, of chapter one hundred and thirteen of the said revised Statutes of Ontario : Provided, moreover, that the Lieutenant-Governor in Council may, whenever it is deemed expedient in the public interest, cause said dams or any of them to be taken down and removed."

12. "Any person or persons floating logs or timber or such like material down the said river, and using the said works, or any of them, shall pay a reasonable sum or compensation for such use ; a schedule of charges for such use shall be prepared and submitted to the Lieutenant Governor in Council, and shall be subject to his approval, and upon the same being approved the said Gilmour & Company, *or their assigns*, may charge *and collect* the said tolls or fees for the use of the said works."

13. "It shall be lawful for the said Gilmour & Company to alter, increase or decrease the said charges, but no such increase or change shall be made until the approval of the Lieutenant-Governor in Council has been obtained thereto."

P. JEWELL & SONS' BELT FACTORY.

One of the three largest belt-making firms in the world, and perhaps the largest of all, is that of P. Jewell & Sons, on Trumbull street. The daily production of belting is about three miles, and a reckoning up of the orders on the books within a few days showed that the concern, although running day and night, was still seventy-three miles and 1,910 feet behind its orders. Three orders aggregated thirty miles. There are belts large and small, and some of the most important do not get their value chiefly from their length. For instance, there were a few days ago on the floor of the factory the following large belts, either complete or in course of construction :—A 48-inch belt 100 feet long is among the widest belts ever made without lapping two hides to secure the necessary width. Four 36-inch belts each of 100 feet, and one 24-inch of 110 feet, make part of a single order. One 36-inch of 100 feet, one 24-inch of 100 feet, and two 24-inch of 200 feet are included in another order. Another 36-inch of 100 feet is for Hubbard, Bakewell & Co., of Pittsburgh, Pa. There is a 30-inch of 110 feet for use in a Providence cotton mill, and another of the same width and 100 feet long, laced instead of riveted, for a cotton mill in Maine. One of the largest belts ever shipped is a 28-inch 275 feet long, for Walter A. Wood, Hoosic Falls, N.Y., the maker of the Woods reapers and binders. The weight is over 1,500 pounds. A 24-inch laced belt of 100 feet is for the American Zylonite Company at North Adams, Mass. All the above belts are double thickness. An immense quantity of smaller belts are turned out constantly. All, large and small, are made from hides tanned by the Company at their tanneries in Michigan. Various machines are used to facilitate and improve the manufacture.—*Hartford Post.*

THE ENGLISH TRADE.

Messrs. Robert Coltart & Co.'s annual wood circular, dated Liverpool, Jan. 31, 1881, says :—

Business in the wood trade at the commencement of the past year was in an unsatisfactory state, as stocks for several months had been accumulating, while the consumptive demand continued on a limited scale, and prices continued to droop until the month of July. Much of the depression was, no doubt, attributable to the extreme severity of the weather during that period, which interfered with out-door work and building operations, and thus had the effect of curtailing the consumption, but the trade was also still suffering, to some extent, from the natural reaction which followed the buoyancy and speculative excitement at the commencement of the previous year. In the summer of 1881, however, a better tone was observable in the trade, which was still further developed during the succeeding months, the import being on a moderate scale, and prices consequently more than recovered the fall that had occurred during the early part of the year, while for some articles, notably Quebec goods, much better prices were obtainable. A further improvement would, no doubt, have been established but for the deficient harvest and the continued depression in the agricultural districts.

The import during the past year was 21 per cent. less than in 1880, while the consumption shows an increase of about 3 per cent., which although only a moderate increase, still follows an increase of 15 per cent. on that of 1879. Present stocks, which are very moderate, are 35 per cent. less than those held at the same time last year, and 35 per cent. less than the average of the five preceding years. It may be noted that in consequence of the unusually open weather which has so far prevailed in Europe and America this winter, it will be difficult, in the absence of sufficient snow, to get down the usual supplies of logs to the shipping ports, therefore, the wood goods available for shipment during the spring will probably be much curtailed, while the very mild weather in this country will also tend, by favoring out-door work, to increase the consumption of wood as compared with the early part of the past year ; but, on the other hand, it should be borne in mind that the introduction of steamers in the wood-carrying trade, which is increasing every year, will, if such supplies are obtainable, speedily remedy any falling off that may take place in the stock of any particular kind of wood.

There has been very little variation in wood freights during the past year, and on the whole they have been very favorable to importers, from the Baltic as well as from the United States and Canadian ports.

The general trade of the country is at present in a sound condition, and the prospect for the current year is very hopeful. The present statistics of the wood trade, to which we have already made reference, also point to a very satisfactory business during the coming year, provided production is not unduly stimulated and all chance of a remunerative business destroyed by an over-supply.

The following is a statement of the cargoes of timber imported from British America, the pitch pine ports, and the Baltic for the last fifteen years :—

	British America.		Pitch Pine.
Year ending the import season of	*Vessels*	*Tonnage.*	*Estimated Ton.*
1867	371	307,387	27,113
1868	332	288,097	37,266
1869	317	259,598	36,488
1870	340	266,753	41,765
1871	303	262,725	47,239
1872	337	272,809	66,055
1873	430	327,396	56,997
1874	468	367,377	85,260
1875	418	307,134	74,196
1876	521	394,907	69,369
1877	468	391,952	80,006
1878	359	269,343	48,665
1879	296	229,334	41,044
1880	424	332,375	58,972
1881	318	242,169	69,834

FOREST TREE CULTURE.

The following letter appears in the Winnipeg *Times* of Feb. 13 :—

SIR,—The necessity and practicability of clothing at least a portion of our treeless prairies with plantations of timber has been so fully demonstrated that any discussion of the subject in abstract or general terms would be a waste of time.

To break the force of the cruel prairies winds ; to check destructive fires ; to provide a supply of fuel and fencing timber for the future, and to adorn our magnificent country, we must plant trees, and do so on a large scale. The question is, how ?

The bonus formerly offered by Government in the shape of tree claims has been discontinued, a tacit acknowledgement of the failure of that plan. Many attempts have been made to promote tree planting by individual effort, but these again have failed, because few pioneer settlers have either time or means to spare from their more pressing needs. Such efforts would at best be feeble and isolated, while the work requires a vigorous and general movement embracing large areas.

Government aid having been withdrawn, and private enterprise having proved wholly inadequate, municipal authority may now be fairly invoked to deal with the matter.

County Councils have an ownership express or implied in road allowances. They can preserve, cut down or sell any timber growing thereon ; and to this power in the County Councils, coupled with the fact that our road allowances comprise so large an area of land, we must look for a solution of the tree-planting problem.

Starting, then, with the assumption that local municipalities are the best qualified bodies to deal with such an undertaking, and that the road allowances on open prairies furnish the best field on which to operate, I throw out the following suggestions, believing that they indicate a basis on which a satisfactory scheme can be perfected.

Of the 99 feet road allowance plow 33 feet on either side, and 16½ feet in the middle, leaving two strips of unbroken sod 8 feet 3 inches wide, equidistant from the middle, for temporary travel pending the completion of the roadway proper. Backset in the fall, and then, leaving a fire break five feet wide outside, sow or plant with tree seeds or cuttings the remainder of the two outside 33 feet spaces. In reploughing the middle or 16½ feet strip, it should be turned inwards in order that repeated ploughing may throw it up to a proper curve for a roadway.

The cost of the ploughing, backsetting and seeding would be about $120 per mile, or in a township of bare prairie containing 72 miles of road allowance, say $8,000. An average township, however, would not require more than half the road allowance to be improved, there being sloughs, ravines, etc., to prevent it. Therefore, the roads of a county containing twelve townships would probably cost fifty thousand dollars, the interest on which, at 6 per cent., would constitute an annual charge upon the land of one cent and one-tenth of a cent per acre, viz., $1.80 per ¼ section.

The ways and means could be provided either by a special levy on all the land, graduated according to the proportion of broken land in the district, or the work could be done on the local option principal, on a petition signed by a majority of the owners of property to be immediately benefitted ; and the cost charged as a special rate over and above all other rates against that property.

After the seventh year, however, the improvement should be self-sustaining, as the right to thin out the young timber would let for a sufficient sum to pay interest on the outlay.

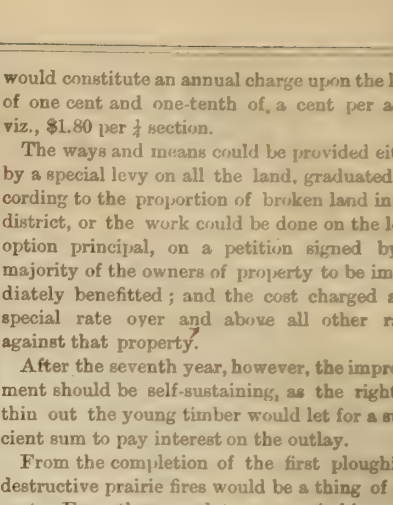
From the completion of the first ploughing, destructive prairie fires would be a thing of the past. From the same date, no man in his senses could lose himself on the prairie, therefore travel would be rendered safe at any season of the year, and at any hour of the day or night. An ample supply of timber for farm purposes would be assured, and for all time. Gradually the growth of timber would mitigate the keen blasts of winter, inducing other climatic changes of a beneficial character. And lastly, by enclosing each square mile of prairie with those gigantic hedgerows our country would be beautiful beyond description.

Yours truly,
JAMES LANG.

Langvale, January, 1882.

A CANADIAN Frenchman named Procule Cadieux, was killed at John Dudgeon's camp, Alcona county, by the butt of a tree which he was chopping, falling on him and crushing and mangling him in a terrible manner.

THE St. John, N.B., *Freeman* says that there were shipped from the port of St. John, for trans-Atlantic ports, during the month of January, 1882, 6,177,225 sup. ft. of deals, battens and ends ; 84,748 sup. ft. of scantling and boards; 33,000 pkgs. of palings ; 524 tons of pine timber, and 353 tons of birch timber. The lumber was shipped in 10 vessels of 8,699 tons.



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81 Colborne Street, Toronto

RAILROAD TREE PLANTING.

The *Railway Review* states that the Northern Pacific Railroad Company, a year or more ago, decided upon a policy of fostering tree culture, and appointed Leonard Hodges to take charge of the matter. The latter, with General Manager Haupt, recently passed over the entire line investigating the needs of the sections through which it passed for increased areas of woods. As a result it is decided to prepare the ground this spring for an extensive system of tree planting, soon to follow, along the Missouri and Dakota divisions. Primarily a row of trees will be planted along the line some 100 feet from the track. Inside of that will be planted yellow cottonwood, which matures in about six years, and which is intended for ties. There will also be planting of numerous other varieties to furnish timber for construction purposes and fuel. Not only does the Company intend thus to obtain an abundance of timber and fuel, but it will have in a short time the very best kind of a snow fence, and, moreover, its lands will acquire a new value to settlers.

THE recent gales made sad havoc in Scotland. On Lord Breadalbane's Perthshire estates some 12,000 trees have been blown down in a circuit of a few miles, and on the Dunse Castle property in Berwickshire, it is estimated that 50,000 have fallen. Some of the oldest and finest trees at Glamis Castle were uprooted, and timber to the value of nearly £100,000 was floating about in the Firth of Clyde.

THE Chippewa *Herald* says that E. H. Everett, who is logging on Dry Wood, is stealing a march on the weather. He has divided his men up into two crews, one crew skids the logs, and snow the roads during the afternoon and evening, and the other commences hauling at midnight, and works until next noon. This may seem like logging under difficulties, but Mr. E. says he is doing good work, and is satisfied if the nights only remain cold.

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(HYDRATED OIL.)

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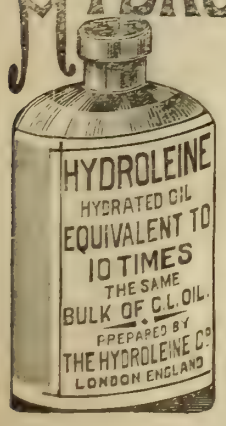

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Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

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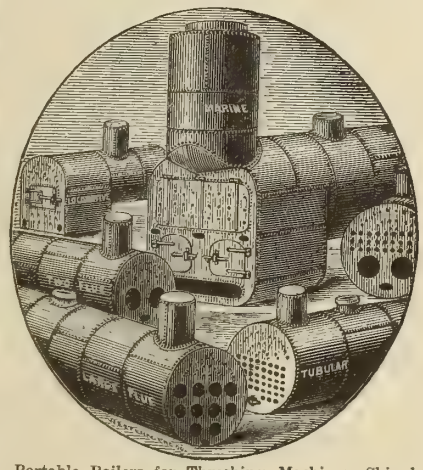

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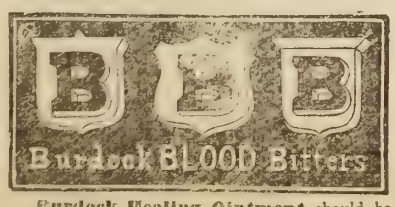

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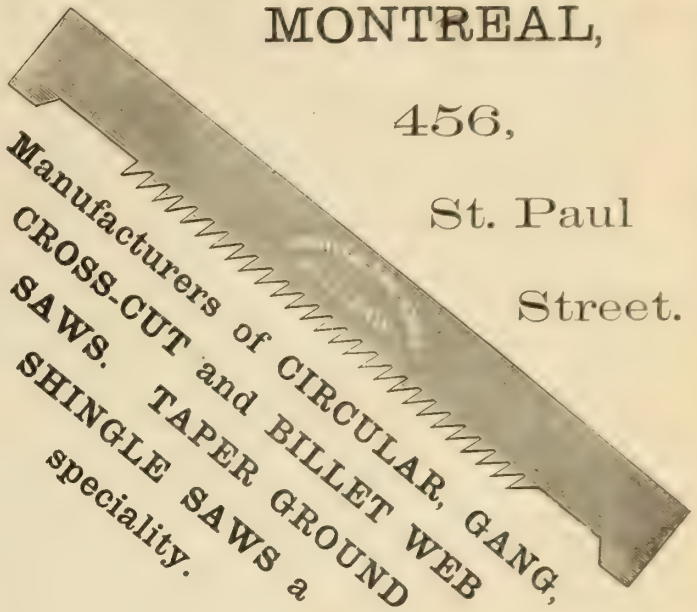

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FORESTRY AND ARBORICULTURE.

The following essay by A. Eby, M.B., Sebringville, Ont., appears in the report for 1881 of the Agricultural and Arts Association, of Ontario, and was highly commended by that body :—

It was lately asserted that in thirty years from the present time the natural forests of this continent would be exhausted, and that we should be compelled to draw on Europe for our supplies of building material. It it probable that this assertion is a pessimist view of the resources of this continent, yet it is an undeniable fact that the destruction of our forests goes on far too rapidly for the future welfare of our people.

Until a very recent period forests were considered an encumbrance rather than a source of wealth in most parts, not only of this Province, but of this continent. On account of its abundance, and the want of facilities for bringing it into the market, much valuable timber was destroyed, or at best burned, for the potash it contained, within the lifetime of the present generation. It is but a few years since our timber has become valuable, and in the lifetime of many it will yet become precious.

Even should steps be at once taken for the restoration of our forests, our natural wood, and consequently our home supply of timber, will long be exhausted before we can hope to have a supply of our own growth. The time is not far distant when we shall have to draw our supply of building material from Europe instead of sending it there ourselves, as is now the case. The European nations, having long since turned their attention to forest culture, will have abundant supplies of valuable timbers when our own will be completely exhausted. While Europe is husbanding and restoring its supplies of timber, we on this continent are putting forth all our power to wipe all forests from the face of it. This is more especially the case in this Province, in which we have no mountain lands inaccessible to the plough. Though arid, sandy districts, too sterile for profitable cultivation, are not uncommon, yet, with few exceptions, they can all be tilled, and are consequently cleared and settled ; whereas, had we had mountainous regions, unfit for cultivation, it is likely they would have remained unsettled in the hands of the Government, and could at once be utilized for growing forests, even if the natural timber had been removed.

It is well known that forests exercise an important influence on the climate. Forests retain much more moisture than cleared lands, and it is well known that moisture in the soil attracts rain much quicker than parched lands. It has also been observed that thunder-showers are apt to follow streams and watercourses.

It is also a well established fact that the more a country becomes cleared up and denuded of its forests, the more subject it becomes to long-continued drouths and violent storms. It is well known that districts of Europe once denuded of forest, but in which they have been restored, support a far larger population now than when denuded of trees. When the well-known Black Forest Mountains of Germany were derobed of their abundant growth of trees, it was found that streams arising in them, that were formerly navigable, gradually dwindled down to shallow brooks; whereas, since the restoration of the woods on those mountains, the streams have also again increased in size.

Spain at one time supported a population of thirty millions, but now that its mountains have been shorn of their forest coverings, it can barely support half that number.

It was well known that it never rained in Egypt. For centuries rain was unknown in that country, but since the Government has gone extensively into tree-growing, copious showers are by no means uncommon.

Mr. George P. Marsh says :—"There are parts of Asia Minor, of Northern Africa, of Greece, and even of Alpine Europe, where causes set in action by man have brought the surface of the earth to a desolation as complete as that of the moon, and yet they are known to have once been covered with luxuriant woods, verdant pastures and fertile meadows ; and a dense population formerly inhabited those now lonely districts."

"Hummel attributes the desolation of the Karst, the high plateau lying north of Trieste—until recently one of the most parched and barren districts of Lurope—to the felling of its wood centuries ago to build the navies of Venice."—*Northrop.*

Dr. Piper, in *Trees of America*, says :—"Near my residence (Woburn, Massachusett) there is a pond upon which mills have been standing since the early settlement of the town. These have been in constant operation until within thirty years, when the supply of water began to fail. The pond owes its existence to a stream which has its source in the hills stretching some miles to the south. Within the time mentioned these hills, which were formerly clothed with a dense forest, have been stripped of trees, and, what was never known before, the stream itself has been entirely dry. Within the last ten years a new growth of wood has sprung up on the land formerly occupied by the old forest, and now the water runs throughout the year."

"Our summers are becoming dryer and our streams smaller. Take the Cuyahoga as an illustration. Fifty years ago barges loaded with goods went up and down that river. Now, in an ordinary stage of water, a canoe or skiff can hardly pass down the stream. And from the same cause—the destruction of our forests—other streams are drying up in summer."—*Wm. Cullen Bryant.*

Northrop says :—"Almost every work on forestry abounds in evidence that extensive forest denudation has everywhere duminished the flow of springs. The case of the famous springs in the Island of Ascension is often cited, which dried up when the adjacent mountain was cleared, but reappeared a few years after the wood was replanted. Several lakes in Switzerland showed a depression of their level after a general devastation of forests."

Siemoni says :—In a rocky nook in the Tuscan Apennines there flowed a perennial stream from three adjacent springs. On the disappearance of the woods around and above the springs, the stream ceased, except in rainy weather, but when a new growth of wood again shaded the soil, the spring began to flow."

Marchand says :—"The river that, from time immemorial, furnished ample water power for the factory at St. Ursanne, dwindled down so much when the surrounding woods were cut away that the factory was obliged to stop altogether."

Captain Campbell Walker, who was long employed in the forest service in India, says :—"He observed the drying up of springs and decrease of the *average* amount of water in some of the mountain forests of India, in which extensive clearing had taken place, and that such clearing had unquestionably lessened the *regular* supply for springs and permanent flow in the streams and rivers."

Foresters of note, like Captain Walker and Dr. J. C. Brown, claim that the recent famine in India was due to the extensive and reckless destruction of the forests of that country by the East India Company, thus lessening the supply of water from the springs, the former source of supply for artificial irrigation. The English Government is now actively engaged in restoring the forests on the mountains of that country.

Since the settlement of Utah by the Mormons, who engaged extensively in tree-planting, Salt Lake, instead of becoming shallower by evaporation year by year, as was the case before the settlement of that territory, has actually risen ten feet in the last twenty years, from the increased amount of water received through the streams supplying it. This increased size of the streams is said to be due rather to a decrease of evaporation, on account of the large groves now covering that country, than to an increase of the rainfall.

It is a well known fact that many water-powers in the older settled counties of this Province, that were considered valuable even thirty years ago, are now that the country is fully cleared up, almost worthless, being available only for two or three months during the spring freshets.

It is not proved that the total rainfall of a country is lessened by denuding it of its forests, but in a well-wooded country there is a more general distribution of the deposition of moisture throughout the year. Observations in France have established that the rainfall in the forests is six per cent. more during the year than in the open country ; that ten per cent. of the total rainfall in the forests is caught up by the leaves and reaches the earth but very gradually, if at all, and that the evaporation in the open fields is five times greater than in the forests.

That forests exercise an important influence on the climate and the permanent water supply, is the almost unanimous opinion of the foresters of Europe. This opinion is not only sustained by theory, but is in accordance with observations made in different countries and by different observers.

"These investigations show that the general destruction of forests has rendered the climate dryer, more changeable and trying, and that forests, on the one hand, tend to lower the general temperature of a country and promote the fall of rain at more *regular* intervals, and, on the other hand, they ward off *sudden* meteorological changes which result in heavy falls of rain and disastrous floods."—*Northrop.*

Mr. Marsh says :—"One important conclusion, at least, is certain and undisputed, that within their own limits and near their borders forests maintain a more uniform degree of humidity in the atmosphere than is observed in the cleared grounds." Speaking of this continent, he says :—"With the disappearance of the forests all is changed. At one season the earth parts with its warmth by radiation to an open sky, and at another receives heat from the unobstructed rays of the sun ; hence the climate becomes excessive, and the soil is alternately parched by the fervor of summer and seared by the rigours of winter."

Commissioners appointed by several learned societies of Europe to investigate this subject reported that "Forests exercise a beneficial influence which can hardly be estimated too highly, in an increased humidity of the air, a reduction of the extremes of temperature, a diminution of evaporation, and a more *regular* distribution of the rainfall, while the injurious effects of their destruction is seen in an alternation of periods of droughts at one time with wasting floods at another."

Northrop says :—"The forests serve as store houses of moisture, both from their leafy canopy, which shuts out the sun, and the myriads or rather millions of leaves covering the soil and acting like a sponge, soaking up and retaining the rain and regulating its distribution, while the roots act as vertical drains, favoring infiltration and promoting the descent of the water into the lower strata of the earth, there to nourish the springs."

In our own country it has recently been observed that seasons of long-continued droughts are much more common now than when it was first settled ; but not only are droughts more common, but so also are violent storms. Twenty-five years ago the firing of a building by lightning was a rare occurrence, whereas, of late years such losses are by no means uncommon ; in fact, I have known such losses to occur within a few miles of each other from the same storm in this county (Perth). In the neighboring County of Waterloo such a thing as the firing of a building by lightning was almost unknown while the noble pine forests, so common there, remained intact, but since their destruction such disasters are as common there as in other counties.

Dr. Brown, the most voluminous writer on this subject in the English language, has clearly proven, from different official documents, that fearful inundations resulted from the clearing of the forests on the mountains of France. So great have been the losses from this source, that the Government has adopted vigorous measures for replanting the denuded mountains.

That such should be the case is quite natural. Forests not only retain moisture longer than the open country, and thus attract rain from passing clouds, but the trees act as conductors of electricity between the earth and the clouds or the air. The positive electricity of the clouds is constantly neutralized by a flow of negative electricity from the earth. The foliage of the trees act as so many distributing points, thus preventing, by gradual neutralization, those violent discharges with which we are so well acquainted. The safety to farm buildings from lightning, when surrounded by tall trees, should alone induce farmers to surround their premises with so beautiful, yet effective, lightning conductors.

From what is stated above, it must be abundantly evident that forests are a necessity to the agricultural interests and welfare of a country, not so much on account of the timber they produce as on account of their moderating influence on the climate. But while this is the case in all countries, it is especially the case in one so level as Southern Ontario. Most parts of this Province are still sufficiently wooded not to feel the effects of a treeless country, but the time is fast approaching when the reckless destruction of our forests will be deplored by our people. A country subject to the long and severe winters we have in Canada, needs the shelter afforded by trees against the blasts and storms with which we all are so well acquainted. The more a country becomes cleared up, the worse will the wintry blasts become. Even the frightful blizzards of the Western States and Manitoba will reach us at no distant day if the wasteful destruction of the forests of this Province and of the adjoining States of Michigan and Wisconsin is permitted to go on unchecked for a few years longer.

Even now, fall wheat, the great staple of the Province, has in many sections become an uncertain crop, on account of the want of proper shelter during the winter and spring. The winds sweep uninterrupted over the fields, and drift the snow from them to the fences and roads, instead of leaving it as a covering to the tender plants. On the approach of sun in the spring, the thin covering of snow is melted off, and the plants lie exposed to alternate frosts and thaws. Thus, instead of a larger clearing giving a larger yield to the farmer, as he expects, his crops becomes more precarious and uncertain as his clearing increases. This, I believe, has been the experience of the great majority of those who settled on a bush farm. The great majority of our farmers would have larger returns from their farms if they had only three-fourths, instead of nine-tenths or the whole of it, cleared and under cultivation. The same labour put on a smaller acreage would bring a much larger return.

In order to spread a proper knowledge of so important a subject as Arboriculture, our Provincial Government should at once appoint a Professor of Forestry in the Ontario College of Agriculture at Guelph. Such a professor should deliver lectures on this important subject, and thus awaken our people from their lethargy to the importance of providing a supply of timber for future generations, and leaving them a wealth far greater than gold—a rich, beautiful, productive country, instead of a sterile, treeless, unproductive desert, as this Province will become if the present destruction of our forests, and the exhaustive and unscientific system of agricultural, now so extensively prevalent, is continued. It is highly necessary that a knowledge of a subject of so great importance to the agricultural interests of the country should be extensively spread while it is yet time to stop the rapid and often wasteful destruction of our forests. This object cannot be better attained than by the establishment of a Professorship of Forestry in our Provincial School of Agriculture, where the leading agriculturalists of the future are receiving their training.

There are many tracts of land in all parts of the country totally unfit for cultivation—barren, sandy, or stoney hills, or low, marshy, boggy flats, that would make splendid forests. Many of the former are too barren to produce even sheep pasture, while the latter are too wet to make it safe for cattle to venture into them. In fact, neither the one or the other should ever have been cleared, but should have been retained as woodlands ; as such they would have been valuable not only for their timber, but for the influnce they would have had on the climate. Encouragement should be given to the holders of such lands to replant them with such forest trees as promise to be of most value for the future, or which may be especially adapted for the soil and climate. This could be done by exempting such lands from taxation, provided they are properly planted and attended as forest lands. But no land should be considered worthy of exemption on which cattle or sheep are allowed to pasture and destroy the young plants as they spring up. Nor should such

woods be exempted from which the young and growing trees are cut, while only those that have reached their maturity, or stunted, ill-shaped young trees, are allowed to stand; such woods do not increase in value from year to year, as is the case where saplings and small trees are allowed to grow.

I have seen woodlands from which cattle were shut out, literally covered by young plants of one, two, or more years of growth, that had sprung up from the seeds fallen from the mature trees. This shows that our forests only need to be preserved in order to keep them growing; but most of our natural forests could be made more valuable by a little care and attention from an experienced forester.

The first care in preserving our natural forests is to protect them against the depredations of cattle; it is just as necessary to keep cattle out of a forest to be preserved as it is to keep them out of a grain field. Cattle, if allowed to run in a forest, will cut off and destroy the young plants that are constantly springing up, and thus prevent the growth of new trees. No forest is worth preserving in which there are no young and growing trees. Forests must be replenished by young and growing trees, just as in the human family the place of the old and decayed is taken by the young and vigorous.

Fire is as dangerous to a forest at certain seasons of the year as to a building; a fire running through a forest may destroy in an hour the growth of half a century, or even a longer time. To prevent these bush fires, now unfortunately so common, we require, besides a more stringent law on the subject, a more enlightened public opinion as to the value of our forests—not only as sources of supply for timber, but, what is greater importance, their moderating influence on the climate. The man that sets fire to a forest should be punished as severely as if he had set fire to a building; the latter can be restored in a short time by a little expense, whereas it takes years to restore a forest.

Old and decayed trees should be removed from a forest intended for preservation; so should all stunted and crippled trees, in order to make room for those that are young and growing. Care should also be taken that any vacant space is planted with young trees. In planting, consideration should always be taken of future demands. If a forest is intended only for fuel, such trees should be planted as will yield the most and best fuel, as the beech, maple, and oak; but as the future generation will probably need wood for other purposes than fuel, it will be wiser to plant such varieties as will yield valuable timber for other purposes, while the refuse wood can be used for fuel. This brings us to the question of the kind of trees to be planted.

At the head of the list of native trees for forest culture I would place the pine. It is peculiarly adapted for our climate; it is a hardy, vigorous grower, and satisfied with the lightest of soils. The different species of it grow either on the most arid, sandy soil, or on the moist, rich soil of our swamps. Pine requires somewhat more care in starting than some other trees do, but when they have once taken root they become hardy, and will thrive on almost any soil, except, perhaps, a heavy clay. Care should also be taken in planting to select the kind most suitable for the soil to be planted. The white pine found in our swamps will not grow so well on light, sandy soil as the yellow and red varieties do; but while it is not suited for uplands, it is the best kind for planting on the rich, muggy soil of the swamps that are to be found in all parts of the Province. For uplands and sandy soils, the red and yellow, and especially the Weymouth pine, will be found the best varieties.

For very light soils, there is probably no tree equal to the Scotch pine *(Pinus Silvestris)*. Large numbers of this variety are planted on Cape Cod, and in other parts of the state of Massachusetts. While it will grow on almost any soil, this variety is especially adapted for the barren driftsands that are found in many places along our lakes. The seeds of it are easily obtainable from some reliable seedsman.

For general economical purposes there is probably no timber superior to pine. As a building material it has no superior. It is extensively used in the manufacture of cabinet ware and household furniture, as also in shipbuilding. Its rapid growth will make it a valuable timber to grow for railway ties, for which purpose large supplies will soon be required, as our natural forests are rapidly becoming exhausted, and in a very few years will be inadequate to supply the immense demands made on them by our railways.

There is another reason why the pine should be extensively planted. Its innumerable needle shaped foliage act as so many points for the distribution of the negative electricity of the earth, and the neutralization of the positive electricity of the atmosphere and clouds, thus preventing their violent discharge in the form of a thunder storm. Of all trees there are, perhaps, none so valuable in this respect as the pines and firs, to which belongs the European larch (*Larix Communis*), presently to be described. The height to which they grow, and their pointed, needle-shaped foliage, make them especially valuable in this respect; and all isolated dwellings and outhouses would be much safer by being surrounded by a cordon of thrifty pines, not to speak of the shelter they afford against the cold blasts of our long winters, and their value in an æsthetic point of view. Fuller says:—"A belt of these surrounding a farm, or such portions as are occupied by the buildings, give a cheerful, comfortable appearance, and both man and beast will live longer and be more happy under such circumstances, than when exposed to every gale, and for six months of the twelve with nothing life-like to look upon." He goes on to say: "If a man goes into the country to buy a farm, he will seldom call where he sees beautiful trees surrounding the house and outbuildings, for he knows instinctively that such places are not for sale, for the owner generally thinks more of his home than of money; but it is the bleak, uninviting farms that are usually *for sale*."

Perhaps a more valuable tree for many purposes than even the pine, is the European larch, of which large forests are planted in Scotland and on the continent of Europe. It is also extensively planted in some of the Northern States of the neighbouring Republic. It is a native of Southern Europe, but will thrive in colder climates, even to the limit of perpetual snow. It is a tree very similar to our tamarack, but much more valuable. It grows very rapdly on almost any dry soil, but will not thrive in damp grounds, and cannot bear stagnant water. Its timber is used largely in shipbuilding, and is very valuable for piles and railway ties. For deals and planks it is inferior to pine, as it is very apt to warp. Fuller says:—"It will last for ages when covered with water, or driven in wet ground. . . . Larch spiles have been taken up in Europe, where it is positively known that they were driven more than a thousand years ago, and yet they were sound and uninjured." Northrop says:—"When raised under right conditions, it combines the two qualities of rapidity of growth and durability of wood more than any other tree. . . . Julius Cæsar spoke strongly of its strength and durability." Monville says:—"In Switzerland the larch, as the most durable of woods, is preferred for shingles, fences, and vine props. These vine props remain fixed for years, and see crop after crop of vines bear their fruit and perish, without showing any symptoms of decay. Props of silver fir would not last more than ten years." Evelyn says:—"It makes everlasting spouts and pent-houses, which need neither pitch nor painting to preserve them." "For out-door work it is the most durable of all descriptions of wood. I have known larch posts that have stood for nearly fifty years," says Michie; while Professor Sargent believes that "For posts it will equal in durability our red cedar, while in the power to hold nails it is greatly its superior." "The larch, while it holds iron as firmly as oak, unlike the latter, does not corrode iron," says Northrop. It is said to have no equal for railway ties. Ties in use for sixteen years on the Boston and Albany Railway were found to be still sound. It has also been largely used for this purpose in England. Ten acres of larch, it is said, will yield as much ship timber as seventy-five acres of oak. Its bark can be used for tanning purposes, though probably not equal to oak bark or our hemlock. Containing a large amount of resinous substance, it makes good fuel, though it is not equal to our maple in this respect. As it grows very rapidly, it is much more valuable than oak for planting. Trees thirty years old are said to have been sold for $15 a piece, while oak at that age were not worth over $3. I have spoken thus freely of this tree, because from the description given of it, I believe it is one of the most, if not *the* most, valuable tree available for forest culture.

The most valuable of our native deciduous trees for cultivation are the ash, elm, hickory, oak, maple, beech, birch, basswood, butternut, black walnut, chestnut, willow, etc. Of these the white ash (*Fraxinus Americana*) is one of the most valuable. Its wood is highly valued by carriage-makers and the manufacturers of agricultural implements. It grows very rapidly, but prefers a moist, deep soil. As it is a very ornamental tree, forming a splendid head, it should become popular for wayside planting. It is also one of the best to grow for its timber. For low, wet soils, the black ash will be found preferable, though its wood is not very valuable except for basket-making. It will also make good flooring and fencing. Of the elms, the white elm (*Ulmus Americana*) is the most valuable. It is a rapid grower, and its timber is valuable for many manufacturing purposes, where strength and durabillty are required. It grows to a very large size, and is a most beautiful tree. It is suitable not only for forest culture, but as an ornamental tree or for wayside growing. The elm prefers a deep, rich, moist soil. There are several varieties of the hickory that may be planted. The kind most suitable for the soil to be planted must be selected. They are rather slow growers, but yield valuable timber. By repeated transplanting when young, they form better roots than they do when growing in a natural state, and will consequently grow more rapidly.

The oak is a very valuable tree, but a slow grower. It takes many years before it attains a size large enough to make it valuable. When planting it for its timber, I would advise planting it in alternate rows with some rapidly growing tree, like the ash or the elm, which will reach maturity long before the oak, and can be removed, and thus permit the latter to expand and grow to maturity.

The maple is a slow grower, but valuable for timber and for fuel. Some varieties, like the red or soft maple, grow more rapidly than the better-known sugar maple, but their wood is not nearly as valuable. The maples makes very fine ornamental trees, and are consequently valuable for wayside planting. The sugar maple prefers a rich, loamy soil, while the red maple delights in low, moist situations, though it always grows on dry ground.

Though the beech is by no means a slow-growing tree, yet it takes many years before it attains a size to be of much value as fuel, for which purpose it is principally used. It is also to a slight extent used in manufacturing, especially for making planes and saw-handles. It is a fine tree, and grows in almost any dry soil. It should not be overlooked for wayside planting. Its nuts are highly prized for the young, especially in sections where the chestnut and the walnut are not to be found.

Basswood grows very rapidly, and is valuable for many manufacturing purposes, on account of its toughness and the ease with which it receives a high polish. As an ornamental tree it has few superiors. It is highly valued by apiarians, as the honey extracted from its flowers is classed as equal to that made from white clover. For wayside growing the linden should not be overlooked.

The butternut thrives best in moist, rich soils. It seldom grows very large, and though its timber is used by cabinet-makers, it would hardly be advisable to plant it for that purpose. But on account of its splendid nuts it deserves to be found on every farm or orchard.

The black walnut will grow rapidly on a good, rich soil. It is a larger tree than the butternut and is much more valuable for its timber, though its nuts are much inferior. Its wood is probably the most valuable that grows in our climate. It should find a place in all tree plantations in southern Ontario, and more especially along the shores of Lake Erie.

The chestnut requires a dry, sandy or gravelly soil, upon which it grows rapidly. It will thrive well in most parts of southern Ontario if it is planted in a suitable soil. This tree is valuable not only as a nut-bearing tree, but for its timber. Fuller says:—"There are other kinds of timber which may be more durable than chestnut, but I know of none that is more rapidly and easily grown." He also says:—"One crop of the nuts from a twenty-year-old tree will more than pay for the original cost of the land and planting them." While young the chestnut makes good rails, stakes, hop poles, etc., or it can be used for fuel. When the trees become large they make valuable timber for cabinet-work and house finishing. As an ornamental tree it always deserves attention, and is worthy of a a place in even small gardens, where a suitable soil can be found. When intended for forest plantation it should be sown rather thickly, and thinned out when the plants become from four to six inches in diameter.

Willow loves a rich, moist soil, but will grow on poorer soil if not too dry. It is a fine ornamental tree, but is not greatly valued for its timber in this country, though in England it is extensively grown for that purpose. As it bears beating better than any other wood, it is used for making cricket bats, floats for paddle-wheels in steamers, brake-blocks for cars, shoe lasts, etc. It is also used for furniture making, planking vessels, etc. Mr. Sargent says:—"As willow timber could be produced far more cheaply than that of any of our native trees, it should soon come into general use here for purposes requiring lightness, pliancy, elasticity and toughness—qualities which it possesses in an eminent degree, and for which more valuable woods are now employed."

For low, wet soils the white cedar (*Cupressus thyoides*) will be most valuable. It grows rapidly, and is valuable for many purposes even while yet small. For swamps that it is desired to plant with trees, a mixture of pine, cedar, and black ash will be found desirable. The cedar can be cut for useful purposes long before it begins to crowd the pine.

In districts convenient to paper mills, the growing of poplars for wood-pulp will be found profitable. It is also in some places on the prairies grown for fuel, but is worth very little for that purpose.

Nearly all the forest trees can be grown with ease, if the proper time for seeding is observed. No special skill is required, nor do they demand any greater care than is devoted to ordinary farm crops. Nor yet is it a matter of expense. Fuller says he has grown many thousands, and that the expense, taking one kind with another, does not exceed two dollars per thousand, though the expense will vary, according to the price of the seeds. Nearly all forest trees can be readily grown from the seed. Except when but a small number is required, it will be found cheaper and more convenient to grow them at home. Where seeds cannot be collected at home, it is best to obtain them from some reliable seedsman. As a rule, the seeds of forest trees should be sown soon after they become ripe—this is the natural order—and many of the seeds are spoilt by keeping. It should also be remembered that many forest trees ripen their seeds in the spring or early summer, and that such should be sown at once after ripening.

SEEDING.—The seeding may be done directly on the soil to be occupied by the trees, or in a nursery. For many kinds of trees direct seeding will be found the best, but the foresters of Europe prefer seeding the pine and the larch in nurseries, from which they are transplanted in the second and third years. By transplanting they are made to form better roots, and will consequently grow more rapidly after they are started. Evergreens also require shading during the first year from the heat of the sun, and some protection against cold during the first winter. This can be more easily provided in a nursery than in an open field.

DRILLS.—The seeding should be done in drills. For most kinds a drill, or trench, about a foot wide and half an inch to an inch deep, is the best. The seeds should be sown pretty thickly over the trench, which is then levelled in even with the other ground. Where a cultivator is

(Continued on next page.)

Travelling Agent.

MR. A. L. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

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Advertisements intended for insertion in any particular issue should reach the office of publication at least three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. MAR. 1, 1882.

HEMLOCK bark brings $6 a cord at Malone, N.Y., and some teams carry $15 worth at a load. One man thus realizes $30 a day for bark.

WE would call the attention of manufacturers of broom handles, clothes pins, &c., to the advertisement of Messrs. W. H. Samuel & Co., of Liverpool, Eng., which will be found in another column.

THE Northern Pacific management is making arrangements for planting trees along its track over the prairies this spring. Yellow cotton wood and other trees adopted to the soil and climate will be selected. The cottonwood will come, they assert, in play for ties. The idea is a good one and might be improved anywhere. Poplar wood is valuable for paper making. Why should not farmers and others, who have the opportunity, plant it as a crop? It would pay well.

WE have received from the publishers, the Lumberman Publishing Company, of Chicago "The Standard Moulding Book," an illustrated catalogue of mouldings, brackets, architraves, balusters, pew ends, stair railings, door and window frames, &c., &c., arranged by Mr. W. B. Judson, editor of the *Northwestern Lumberman*. It contains a great number of clear and well executed drawings, with a price list appended, and will undoubtedly be valuable to the trade, to builders, architects, and others.

THE *Timber Trades Journal* says we have received a circular from Messrs. Holland, Mc Connell & Co., from which we learn that the importation of doors from America to London last year was no less than 125,848, while Sweden, which is so much nearer to us, and where labour is cheaper, sent only 37,572 to London. Allowing forty doors to an average house, the quantity above mentioned (125,848) would supply the wants in that department of 3,146 houses, while those from Sweden would supply only 939 houses. It would appear from this comparison that American doors, either from material or workmanship, find more favor among house-builders than those from Sweden.

A WHOLE cargo of petroleum was lately shipped from New York in paper casks. These casks are made by a company at Hartford, at Cleveland and at Toledo. They are painted blue, and have iron hoops, and they are $1.35 apiece.

A CORRESPONDENT from Lancaster, Ont., writes us as a matter of information for the LUMBERMAN from the "Eastern District," that not more than from 40 to 50 per cent of last season's cut of basswood and ash will be got out for market this season.

MESSRS. THOMSON & BAKER are now constructing three of Goldie's Patent Solid Shaved Shingle Machines, at the foundry of Copp Bros. & Barry, Hamilton, Ont. These machines cut a perfectly solid and smooth shingle, and each one turns out a car load per day, 80 to 90 M. The patentee, Mr. Wm. Goldie, of W. Bay City, Mich., is superintending the work. Shingles need not be scarce where these are running.

EXTENSIVE repairs are being made in the Chaudiere booms, on the Ottawa, Canada, by the construction of new piers. A novel feature in the construction of one of these piers is that instead of being built of the usually heavy timber, stout planks are fastened together to give the required thickness, and the pieces thus made are used in the ordinary manner. Should this "built" timber prove of equal strength and durability with the ordinary logs used in such works, there seems no doubt but that good heavy plank will supersede in many cases the unwieldly masses of solid timber now used in the construction of dams and piers.

Highly Pleased.

Messrs. J. & R. Miller, of Mount Elgin, while remitting their subscription, say:—

"We are highly pleased with the LUMBERMAN and consider that it has much more than paid us. We would recommend it to all engaged in the lumber business."

Complimentary.

The Detroit *Marine News* says:—"We are pleasad to put the CANADA LUMBERMAN on our exchange list. The lumber and shipping interests are most intimately connected, and among the representatives of the mighty lumber interests the CANADA LUMBERMAN has high rank."

UTILIZING THE WATER POWER.

About one year ago steps were taken as a preliminary in the organization of what is now known as the St. Louis Water Power Company, and last month the corporation was perfected in accordance with a plan originally devised by Jay Cooke, and including the utilization of the fine water power on the St. Louis River, justly considered one of the best in the northwest. In the distance of nine miles between Thomson and Fond du Lac there is a fall of 600 feet in the river mentioned, and the new company proposes to use this vast power for lumbering and manufacturing purposes—the fee of 5,000 acres of land on the Wisconsin and Minnesota shores of the stream now being vested in the Company. Its capital stock has been placed at $1,000,000, three-fourths of which has been subscribed, and valuable boom charters in Wisconsin and Minnesota are held—covering all the available boom ground on the St. Louis River.

The Company will at once proceed with the construction of a new boom costing $12,000, and with a capacity of 40,000,000 feet, which will be increased to 100,000,000 next year.

The officers of the new company are as follows:—

President—James Smith, Jr., St. Paul.

Vice-President—E. L. Craw, Grand Haven, Mich.

Secretary—G. B. Kirkbride, Minneapolis.

Treasurer—L. Mendenhall, Duluth.

General Manager—James Barden, Superior.

Offices will be opened at St. Paul, Duluth, and Superior City, the principal being located at the latter point. The first booming ground will hold over 2,000,000 feet of timber, and two extensive mills will be built by the Company this year.—*Lumberman's Gazette.*

FORESTRY AND ARBORICULTURE.

(Continued from page 69.)

to be used in keeping down the weeds—which has to be done during the first two years at least—the drills should be at least four feet apart, but where the hoe or spade only is to be used, the drills may be made much closer together. The smaller seeds should not be as thickly covered as the larger. In starting a nursery, care should be taken to have the soil well cultivated, and free as possible from weeds; it should also be well manured, so as to give the young plants a good start. If the soil is heavy it should be well under-drained, so as to make it as loose and porous as possible.

When the trees have reached their second or third years they should be transplanted to their permanent locations. They should at first be planted three or four feet apart, in drills four feet apart. After a few years' growth the trees will require thinning out; a second and a third thinning out may be required before the trees have room enough for full development. When the seeding is done directly on the soil to be occupied by the trees, much the same course is pursued as when the seeding is done in a nursery, but attention must sooner be paid to the thinning out of the plants. Care must be taken to carefully weed the field or nursery, lest the growth of the young plants become stunted. In very dry seasons the seeds may require sprinkling to get them to sprout, but care should be taken not to drown them—in transplanting, the young trees may also require a little watering. In transplanting, care should be taken that the roots are not long exposed to the sun or cold winds. If possible, a damp, cloudy day should be taken for transplanting, which should be done early in the spring. When trees are to be taken some distance before replanting, care should be taken not to let the roots become dry. Most deciduous trees can be taken up in the fall, and the roots pruned, tied in bundles, and then well covered until the spring, when they will be ready for transhipment so soon as the season is far enough advanced for planting.

While on this subject, I cannot pass without speaking of a branch of arboriculture which, though not strictly forestry, is so closely allied to it that it deserves more than a passing notice—I refer to the planting of trees along the roadsides. By a little trouble both sides of our public roads could be planted with some kind of forest trees, valuable for their timber. By planting them twenty-five feet apart it would require 420 trees for each mile, to plant both sides of the road—equal to several acres of closely planted forest. This would add immensely to the beauty of our country, and would have an important influence on our climate, not to speak of the comfort it would be to travellers on a hot summer day, as also to the cattle grazing in the adjoining fields, or the shelter such trees would afford in a storm.

For this purpose such varieties of trees should be selected as not only grow rapidly, but produce valuable timber when grown up. For this purpose pine, larch, oak, elm, ash, basswood, maple, beech, walnut, chestnut, etc., according to the nature of the soil to be planted and the climate, should be selected. The planting should be done by the owner of the adjoining land, whose property the trees should be. The planting of the trees might be done under the superintendency of the pathmasters, under whose care and inspection they should also be placed. He should not only superintend the planting, but the removal of mature trees, and the replanting of the space occupied by the removed trees. For this purpose it would be necessary for the Legislature to pass an Act relating to this matter. I think it would not be a very difficult task to form a generally acceptable Act on this subject. Much has already been done in some sections in the way of planting trees along the roadsides, but to make it at all general will require an Act making it compulsory, and appointing inspectors or overseers under whose superintendence the work should be done. The immensely favorable influence such general tree-planting along our roads and highways would have on the climate would justify the Legislature in passing an act of the kind, and I hope some one of our many members will find time enough to draw out a Bill of so general a benefit.

The Government should have a careful survey made of the extensive territory still in its possession, and set aside all parts not suitable for agricultural settlement as forest lands, and put them in charge of thoroughly competent inspectors, whose duty it would be to preserve as much as possible the existing growing timber and replant such tracts from which the timber has been removed. In that way large tracts that are practically worthless for agricultural purposes would become a source of no small revenue to the Province by the time the next generation will have to grapple with the important question of ways and means. By timely action in this matter large forests of valuable timber might be prepared for future generations, who will not be able to draw their supplies from our natural forests, which will be exhausted long before such new growths would be fit for use. By replanting such otherwise worthless lands with valuable trees, and putting them in charge of thoroughly trained foresters, they would in a few generations become more valuable than agricultural lands, and prove a far greater source of wealth to the country than if allowed to become private property or permitted to remain barren wastes, destitute of valuable timber and unfit for cultivation.

Finally, I would recommend the formation of a society that would devote itself to the spreading of a knowledge of arboriculture and forestry, and the collection of information as to the state of our natural forests, the kind of trees most suitable for the different sections of the Province, and the encouragement of tree planting. Such a society should prove a great benefit to the Province. It should meet at least once a year, either at the time of holding the Provincial Exhibition, or at some other convenient time and place.

A GOOD THING FROM THE STATES.

[*Montreal (Canada) Post.*]

In this age of quackery it is consoling to discover that there is something solid in existence, and that, though there are venders who lie most cheerfully about their wares, there are others who tell the truth and allow time to test the merits of what they offer for sale. As year after year rolls over, the frauds and the shams sink away out of sight in the pools and morasses of obscurity, while that which is really good and true stands boldly forth all the grander for its age and solidity. Thus while within the present decade thousands of patent medicines, puffed at one time to inflation, have shrunk before the test of analysis, St. Jacobs Oil has bravely borne the strain, and is to-day renowned all over the world for its famous curative powers. It is truly one of the phenomena of the age we live in. The sale of this article is incredible. It is to be found all over the civilized world, and in a good many places that are not civilized—for, unfortunately, the bones of sorrowing man are racked and ache with pain no matter what region he inhabits—and we believe it is yet destined to be found in every house, and to supersede the many nostrums which still remain abroad to defraud humanity of its money and its health. The firm of A. Vogeler & Co., Baltimore, Md., spend half a million dollars yearly in advertising St. Jacobs Oil, and hence we may guess at the full extent of their enormous business. It is truly marvellous, or would be, did we not know the circulation of this inestimable blessing.

SHREWD AS EVER.—In an extended article in the Washington (D. C.) *Star*, we notice that, among others, Senator James G. Blaine who has suffered in the past with rheumatism now keeps St. Jacobs Oil on hand in case of any future attack.

CHILBLAINS.—These troublesome complaints may be speedily cured by Hagyard's Yellow Oil, the great Rheumatic remedy, which, as an external application and an internal remedy has a wider range of usefulness than any similar preparation in the world. All druggists sell it. Price 25c.

A CURE FOR HEADACHE.—What physician has ever discovered a cure for headache? Echo answers none. But Burdock Blood Bitters by their purifying, invigorating, nervine properties afford a cure in nearly every case. The health-giving principles of this remedy are unequalled by any similar preparation in the world.

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JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station. Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. 1L10

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Address at once as above with full particulars. 2L5

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175	"	do	1 x 12 "
11	"	do	2 x 10 "
20	"	do	2 x 12 "
140	"	do	1 inch Siding
20	"	do	1¼ "
40	"	do	2 x 10 Joists.
16	"	Cedar,	3 x 6 "
19	"	Basswood,	1¼ inch.

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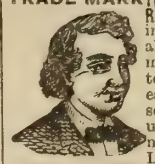
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A POET ON FOREST FIRES.

If Mr. Joaquin Miller's poetry did not entitle him to the fame of an original genius, a scheme that he has for preserving the forests of America would. In the New York *Independent* he proposes to run fire through the woods every autumn by way of keeping them safe from fire in the summer. This, it appears, has been the practice from time immemorial of the Western Indians, from whom in his youth Mr. Miller obtained much of the knowledge by which he shines before white men. As the Indians in question lived on great treeless plains when the poet knew them, and long before, we may believe that their ancestors did run fires through primeval forests in those regions, perhaps with the intention of preserving them, but not exactly with that result.

In Mr. Miller's day the Indians of his acquaintance had, it appears, but small patches of deciduous trees, bordering on the prairie, to preserve, and it is quite likely that their practice of running fire through and around them every fall was a good one. The accumulation of easily ignited grass, leaves, etc., was thus prevented and the light annual fire would not injure leafless hardwood trees.

But the poet proposes to deal with all the forests of the continent on the Indian plan. He says :—

"An annual fire is as natural, and necessary too, as is a rain fall at seed-time for the health and long life of any forest. When the leaves have fallen and all the nuts and fruit are ripened ; when the bark of the tree is hard and sapless, and the new bushes and new branches are denuded and are made sound and hard, then the dry and indolent Indian summer possesses the land. The winds are still then, and there is no peril at all in turning the fire loose. This is the time the Indian takes to clear of his fields for the grasses of the coming spring, and to purify them of the malaria, burning leaves, and mosses that otherwise would lie rotting on the ground, harbouring insects, reptiles, fevers, death, and smothering out the new grasses, flowers, roots, and ground fruits for the coming year. The borer, the caterpillar, Colarado beetle, grasshopper, and bull-cricket—these are some of the beautiful fruits borne from the white man's management, of our plains and forests."

After appealing to the history of Palestine, Assyria, Babylon, and ancient Germany, old Gaul, Italy, and Tyre, to support his argument, he says :—

"But to return to our own forests. I know it might at first be dangerous and difficult to burn out our forests now, and get them back to a state of nature, as it were. Yet it must be done. The old briar-bound and moss-grown worm-fence that winds about the hill to mark the limit of some settler's domain must go. Better the old fence should be burned now than the barn, house, cattle, and perhaps babies and all, in the end. However, these are details that must adjust and fit in themselves.

"The one special idea is to have the forests all burned over and burned out every autumn. These natural annual fires are so light that even the smallest and frailest little bush will not perish. See how nature has ordered this.

"Of course, all this will have to be regulated, by law ; but here again I come to detail, which I shall not touch now. I should say, however, that every State ought to have its Forest Commissioners, and every part of each State be made to keep its forests clean, as certainly and exactly as any division of a city is made to keep its streets clean or in repair."

Mr. Miller hit the blot on his plan in the second sentence of the last quoted extract. It would at first be difficult and dangerous to run fire through pine forests in Indian summer, but never difficult or dangerous or necessary again, because there would probably be no forests left.

Though the poet's plan would not work, the idea that underlies it is a good one. It would be well to keep the forests free from accumulated rubbish. Every year vast quantities of inflammable material—pine needles, branches, chips, etc.—are left in the woods by lumbermen to assist in the spread of the fire. There is no reason why all this stuff should not be burned as soon as made in the winter, when the fire would not run. The Government could commission bushrangers to see this done, and thus the great necessity which Mr. Miller perceives for burning the forests in order to keep them from being burned would be somewhat lessened.—*Globe.*

STOPPING THE WATER SUPPLY.

In a paper of reminiscences by the Rev. W. Wye Smith, published in the *Canadian Monthly*, we find the following paragraph, which deserves attention as a striking illustration of the mischief that is being done by overclearing :—

"It will seem odd to the younger inhabitants of Brantford to state that near where the two railways cross, on the north edge of the city, was a mill-pond, supplying power to a mill some distance below. I once, when a boy, wandered out there, and had an exciting engagement with a snapping turtle that was sunning himself on the bank. And in 1852 I remember getting on board a queer flat-bottomed steamer—a regular old *tea pot*—to go to Buffalo. I was very glad to find that we changed boats at Dunnville, for I did not think much of the seaworthiness of "The Queen ;" which I believe was the name of the old scow I made the passage in. Probably the navigation of the Grand River (Lord Dorchester, the 'Sir Guy Carleton' of history, called it, in 1798, the 'Ouse ;' but the name did not appear to *stick*), will never be revived. For one thing, the volume of water is immensely less than it was. I spent three months on its banks in 1837 ; and when a three days rain storm came, the river became swollen and dark coloured, and remained so for a month. Now, with the upper forests cleared away, it has hardly more water than will turn a mill on a dry summer. I was much interested in seeing, in the summer of 1837, some men who were running a pail factory in Galt pass down the rapids above Glenmorris, on a raft, with several hundred gaily painted pails, bound for Brantford. This could not be done now, except on the dangerous eddies of a great freshet. The same may be said of other streams ; old mills are found with not a drop of water running past them in a dry summer."

THE SCIENTIFIC AMERICAN OFFICES.

We are glad to announce that the *Scientific American* came out of the late fire in New York like the fabled Phœnix, with renewed life. The subscription lists, account books, patent records, patent drawings, and correspondence were preserved in massive fire-proof safes. The printing of the *Scientific American* and *Supplement* was done in another building ; consequently the types, plates, presses, paper, etc., were unharmed, and no interruption of business was occasioned.

The new *Scientific American* offices are located at 216 Broadway, corner of Warren Street, a very central and excellent situation. Here, in addition to the issuing of their interesting publications, Messrs. Munn & Co., aided by trained examiners and draughtsmen, prepare specifications and drawings for American and Foreign patents. If any of our readers should happen to make a new discovery (we hope every one of them may do so, and gain a fortune), they have only to drop a line to Munn & Co., 261 Broadway, New York, who will reply at once, without charge, stating whether the invention is probably novel and patentable. A handbook of instructions, with full particulars, will also be sent, free. Messrs. Munn & Co., have had over thirty-five years' experience in the business.

DESTRUCTION OF TIMBER.

The Chicago *Tribune* says that while the need of legal restrictions to prevent the total destruction of our forests is so apparent, it is not often that they are imposed by State authority. The National Government is powerless to interfere, except for the protection of the public lands, and the laws enacted for this purpose are liberally interpreted and feebly enforced, if at all. Settlers on timber lands have not always been informed that the regulations imposed upon them were different from those established for prairie settlers. The law forbids persons who have acquired timber lands under the Homestead or Pre-emption acts to remove more of the timber than may be necessary for purposes of cultivation. This provision has been flagrantly violated by persons who have acquired the title to Government timber merely for the purpose of selling it to speculators. The new commissioner of the Land-Office has undertaken to stop this abuse. He has caused the provisions of the law in this respect to be stamped in red ink upon the blank receipts issued to timberland settlers ; and has enjoined upon local agents the duty of watching and reporting cases of depredation and violation of the laws. These orders may be a partial remedy. But it is evident the waste of timber cannot be stopped or repaired until the State Governments take an active interest in the subject. They may not be able to prevent the destruction of forests which have actually passed into private ownership ; but they may protect such as still belong to the State, and, by offering bonuses, encourage new growth of timber to take the place of those destroyed.

HENRY STEVENS & Co., of St. Helen, Roscommon county, Mich., write that they have banked some logs this season that deserve to be rolled on the skidway of fame for the lumber world to gaze at. On January 31, at their camp No. 5, Leonard Coulter, foreman, were banked ten pine logs that scaled 6,316 feet. On February 2, at camp No. 3, David Murdock, foreman, fifteen pine logs were banked that scaled 8,197 feet. These logs were banked at two hauls, partially up hill.

Land and Water says :—"It is stated that from the forests belonging to M. Bismark are cut the greater portion of the blocks used for the wood pavement in London, and that an English company is going to use it in Paris for the Boulevard Montmartre. Query, if it will be paved with good intentions !"

"WOMEN NEVER THINK."—If the crabbed old bachelor who uttered this sentiment could but witness the intense thought, deep study and thorough investigation of women in determining the best medicines to keep their families well, and would note their sagacity and wisdom in selecting Hop Bitters as the best, and demonstrating it by keeping their families in perpetual health, and at a mere nominal expense, he would be first to acknowledge that such sentiments are baseless and false.—*Picayune.*

IS IT A HUMBUG? Some people think all proprietary medicines humbugs. In this they must be mistaken. A cough medicine like N. H. Downs' Elixir that has stood the racket of 52 years must have some virtue, and must cure the diseases for which it is recommended, or people would not continue to buy and use it as they do. It seems to us that even if we knew nothing of its merits, the fact of its large and continually increasing sale justifies us in recommending Down's Elixir to all who may need a reliable cough medicine.

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

A GOOD FILTER.—To have pure water in the house every family should have a filter, the health and comfort depends largely upon the use of properly filtered water. The liver is the true filter for the blood, and Burdock Blood Bitters keeps the liver and all the secretory organs in a healthy condition. It is the grand blood purifying, liver regulating tonic.

THE SECRET OF BEAUTY.—No Cosmetic in the world can impart beauty to a face that is disfigured by unsightly blotches arising from impure blood. Burdock Blood Bitters is the grand purifying medicine for all humors of the blood. It makes good blood and imparts the bloom of health to the most sallow complexion.

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly to it wonderful effects.

BURNS AND SCALDS are promptly cured as all flesh wounds, sprains, bruises, callous lumps, soreness, pain, inflamation and all painful diseases ; by the great Rheumatic Remedy, Hagyard's Yellow Oil. For external and internal use. Price 25c.

THE lost arts did not include steel pen making, an invention of the ninetheenth century, Esterbrook's being superior, standard and reliable.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

Chips.

THE Northern Pacific Railway Company, in order to encourage tree planting, will during the season of 1882 transport, free of charge, fruit and ornamental young trees for the actual use of settlers along its line.

ALLEGED pinkeye has become so prevalent in the Upper Ottawa district that lumbermen say they will be unable to get out so much timber as they expected on account of the scarcity of teams. Some veterinary surgeons say that the disease is not pinkeye at all, but only an acute influenza.

THE *Northwestern Lumberman* says the export of lumber from the States to Mexico, though not yet an immense factor of their commerce, is increasing under the late stimulus given to their relations with that country by railroad building, mining schemes, etc. In 1880 they exported to Mexico lumber to the value of $130,000, and in 1881 the value increased to $183,436.

THE steamship *Maas*, which arrived on Feb. 6 at New York, from Rotterdam, reports, Jan. 22, lat. 50 13, long. 13 40, passed a large ship on fire, water-logged, probably loaded with lumber. The ship was almost totally burned out. Steamed twice around the vessel, but could not perceive any name on her. Held a sharp look out for boats during the whole day, but saw none.

J. & G. K. WENTWORTH are new lumbermen in Mecosta county, Mich., but come prominently to the front on account of having purchased the Eldred railroad, which they removed to their present location. Their present job is estimated at 15,000,000 feet, which goes into the Chippewa River over their railroad, which is about five miles long, and is in course of construction, and nearly completed.

CAMPS have been established at Little Quinnesec Falls, Wis., and the work of making a cut around the falls on the Michigan side of the river has commenced. The cut will be 488 feet long, 40 feet deep in the deepest place, from 30 to 40 feet wide at the bottom, and 6,000 cubic yards of rock will be taken out of it. The work will cost in the neighbourhood of $15,000, and is expected to be completed before the logs come down in the spring. Logs are so badly damaged in coming over the falls that it will take but a few years for the cut to pay for itself.

THE *Northwestern Lumberman* says that Senator Flint has introduced a bill into the Wisconsin legislature to provide for levying a tax of fifteen cents a thousand on all logs shipped out of the State. The object is to protect home manufactures on Wisconsin streams, and possibly to check the wholesale running of logs down the Mississippi to the Iowa, Illinois and Missouri mills. It would also affect the interests of Michigan lumbermen who operate in Wisconsin. The bill, however, will have to fight an enormous capital before it becomes a law.

THE Calais *Times* says that an unusually large stock of logs was held over on the St. Croix this winter. With the exception of F. H. Tedd & Sons, and Chas. F. Todd, all of the manufacturers will have an abundant supply of logs with which to start in the spring. Murchie & Sons have the largest stock on hand, followed in the order named by H. F. Eaton, Eaton Bros., and Gates & Wentworth. Most of these logs are separated in side booms, and in the main and Baring logs enough are left for a month's rafting. Alexander Milligan says he has not seen for thirty years so many logs left over in the side booms.

A SIXTH of France (including Corsica) is under wood, but, notwithstanding this, an immense amount of timber is annually imported into the country from the United States and the north of Europe. In 1824 the Nancy School of Forestry was instituted, and a new code of forest laws was adopted in 1827. The fact has of late years been recognized that the floods which have proved so terribly disastrous to France have been largely due to the absence of trees on mountain sides. A forest acts both mechanically and hydrographically ; in the former case by preventing any large body of water from collecting, and as a sort of permanent floodgate ; in the latter by the trees themselves absorbing a vast deal of moisture.

A NATIONAL BLESSING.

(*Philadelphia Record.*)

The Nineteenth Century, above all other ages, has been noted for its many inventions. It has given us the steam power in its thousandfold applications, the telegraph, the telephone, the electric light, and innumerable other discoveries, all blessings to humanity; each day bringing us new surprises until we have become so accustomed to the exhibitions of the genius of our century that any new development is at once received as a matter of natural consequence, and most people will simply remark, "I told you so." As an instance of this fact we would only call attention to the wonderful discovery, St. Jacobs Oil. A few years ago this Great German Remedy had never been heard of before in this country; to-day you can hardly find a man, woman or child in the United States who has not used the remedy for some pain or ache, or at least has witnessed its use and seen its wonderful effects on a fellow-being. St. Jacobs Oil has become a national remedy, for it is known in every city, town, village and hamlet in the country. It is a cosmopolitan preparation, for it is praised by the Americans, Germans, Italians, Bohemians, Danes, Swedes, Portuguese, Spaniards, French,—yes, even the "Heathen Chinee." It may be termed the universal blessing, for it is endorsed by the rich and poor, the clergyman and the physician, the merchant and the laborer, in fact by all classes of the community. St. Jacobs Oil, by its almost marvellous properties, can be employed for a simple cut or sprain, or the worst case of inflammatory rheumatism. Persons who have been confined to their bed for years with that terrible disease, rheumatism, have been completely cured by the use of a single bottle. Such cases have been quoted by the leading journals of our country; for instance, the St. Louis *Post-Despatch* says:—Under the title of Old Probabilities, one of the most useful and valuable officers of the United States Government is most widely known. But quite as well known is Prof. J. H. Tice, the meteorologist of the Mississippi Valley, whose contributions to his favorite study have given him an almost national reputation. On a recent tour through the Northwest the Professor had a narrow escape from the serious consequences of a sudden and very dangerous illness, the particulars of which he thus refers:—"The day after concluding my course of lectures at Burlington, Iowa, on the 21st of December last, I was seized with a sudden attack of neuralgia in the chest, almost preventing breathing. My pulse, usually eighty, fell to thirty-five; intense nausea of the stomach succeeded, and a cold clammy sweat covered my entire body. The attending physician could do nothing to relieve me; after suffering three years, I thought, as I had been using St. Jacobs Oil with good effect for rheumatic pains, I would try it. I saturated a piece of flannel, large enough to cover my chest, with the Oil, and applied it. The relief was almost instantaneous. In one hour I was almost free from pain, and would have taken the train to fill an appointment in a neighbouring town, had not my friends dissuaded me. As it was, I took the night train for my home, St. Louis, and have not been troubled since."

The Boston *Globe* says:—"Charles S. Strickland, Esq., builder, No. 9 Boylston street and 106 Harrison avenue, Boston, thus speaks:—"The pleasure which I hereby attempt to express can only be half conveyed by words. Physicians of very high character and notoriety have heretofore declared my rheumatism incurable. Specifics, almost numberless, have failed to cure, or even alleviate the intensity of the pain, which has frequently confined me to my room for three months at a time. One week ago I was seized with an attack of acute rheumatism of the knee. In a few hours the entire knee joint became swollen to enormous proportions, and walking was rendered impossible. Nothing remained for me, and I intended to resign myself, as best I might, to another month's agonies. By chance I learned of the wonderful curative properties of St. Jacobs Oil. I clutched it as a straw, and in a few hours was free from pain in the knee, arm and shoulder. As before stated, I cannot find words to convey my praise and gratitude to the discoverer of this king of rheumatism."

The Chicago *Times* says:—"Everybody on the South Side knows J. D. L. Harvey, Esq., who has been a resident of Chicago for over twenty years. Mr. Harvey expressed himself on the "Oil subject" as follows:—"I have spent over $2,000 to cure my wife of rheumatism. Two bottles of St. Jacobs Oil accomplished what all the medical treatment failed to bring about. I regard it as a greater discovery than electricity. It is a boon to the human race, and I am very glad to have this opportunity of testifying as to its remarkable efficacy. I cannot speak too highly of it, and I would be recreant to my duty to those afflicted did I not lift my voice in its praise."

The Philadelphia *Ledger* says:—"Mr. George I. Graham, 820 Nineteenth street, Philadelphia, is a journalist of many years experience, and is actively connected with the Philadelphia *Sunday Mirror*, a leading theatrical and musical journal. During the "late unpleasantness" Mr. Graham was Captain of Company K, One hundred and eighty-third Pennsylvania regiment, and through exposure in the field he contracted a variety of ills, and he says a very troublesome case of rheumatism in the right leg and foot was a war inheritance that he had in vain tried to get rid of, until he was recommended to try St. Jacobs Oil. He states that he felt a slight relief even on the first application of the Oil. Before the first bottle he purchased had been used up he had but few traces of his rheumatism, and at this time he says the disease has entirely left him, which he attributes entirely to the use of St. Jacobs Oil. He remarks:—"No person need suffer with rheumatism if St. Jacobs Oil can be obtained; to those who are afflicted with that complaint it is worth its weight in gold."

The Chicago *Inter-Ocean* says:—Captain Paul Boynton, the world-renowned swimmer, thus speaks of the old German Remedy: "From constant exposure I am somewhat subject to rheumatic pains, and nothing would ever benefit me until I got hold of this old German Remedy. Why, on my travels I have met people who had been suffering with rheumatism for years; by my advice they tried the Oil, and it cured them. I would sooner do without food for days than be without this remedy for one hour. In fact I would not attempt a trip without St. Jacobs Oil, as I do not see how I can get along without it."

St. Jacobs Oil has been endorsed by persons of national reputation, who would not lend their names if they were not convinced that it was a duty they owed to suffering humanity; they have experienced the wonderful effect of the Great German Remedy, and they want their fellow creatures to know the result. We would only mention in this connection the Rt. Rev. Bishop Gilmour, of Cleveland, Ohio: "Excellent for rheumatism and kindred diseases; it has benefitted me greatly." Mme. Maria Salvotti, prima donna, Wilhelmj Concert Troupe:—"Nothing can compare with it as a prompt, reliable cure for the ailment named." William H. Wareing, Esq., Assistant General Superintendent, New York Post Office: "Proved all that is claimed for the Oil, and found efficacious ready relief for rheumatic complaints." Hon. Thomas L. James, Postmaster, New York, referring to Superintendent Wareing's report concerning St. Jacobs Oil, "I concur." Prof. C. O. Duplessis, Manager Chicago Gymnasium, Chicago, Ill.: "Our professionals and amateurs use it in preference to everything they have ever tried." George W. Walling, Esq., Superintendent Police, New York City: "Members of this department relieved of rheumatism by its use." Stacy Hill, Esq., Mount Auburn Inclined Plane Railroad, Cincinnati, Ohio: "Undoubtedly it is a remarkable medicine." Captain Henry M. Holzwarth, Chief Detective Force, Cleveland, Ohio: "Surprising relief; a world of good." Prof. Edward Holst, pianist and composer, Chicago, Ill.: "Its effects are in harmony with its claims." In conclusion we would say that it is the imperative duty of every family to have a bottle of St. Jacobs Oil on hand for all emergencies; for the remedy is a true friend in need, and the occasion for its immediate use may come when it is least expected. Follow this advice, and it will not be long before you will join with us in calling St. Jacobs Oil "A National Blessing."

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BURDOCK BLOOD BITTERS

Unlocks all the clogged avenues of the **Bowels, Kidneys and Liver**, carrying off gradually without weakening the system, all the impurities and foul humors of the secretions; at the same time **Correcting Acidity of the Stomach**, curing **Biliousness, Dyspepsia, Headaches, Dizziness, Heartburn, Constipation, Dryness of the Skin, Dropsy, Dimness of Vision, Jaundice, Salt Rheum, Erysipelas, Scrofula, Fluttering of the Heart, Nervousness and General Debility**; all these and many other similar Complaints yield to the happy influence of **BURDOCK BLOOD BITTERS.**

Sample Bottles 10c; Regular size $1.

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Lead Scuppers & Water Closets & all goods in my line for Ships' use.

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STOVES,

Shop, Office and Parlor Stoves, and Franklins.

Agricultural Implements.

BRASS CASTINGS.

Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.

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Market Reports.

TORONTO.

From our own Correspondent.

FEB. 20th.—Lumber shipments to this city are extremely small at present, and likely to continue so for some time to come, if the railway companies continue to fleece shippers in the same style as at present adopted by them. The freight department of the G. T. R. here has a new manager in charge, and so far as lumbermen are concerned, at least, the change has not been a happy one. The stringent measures now in operation, in regard to the weighing of all cars of lumber, certainly commenced under his instructions, and to make the shippers' position still more hazardous, this model of a freight agent has just now issued a circular notifying all lumber shippers that on and after the 1st of March, all cars not unloaded within forty-eight hours after their arrival in Toronto, will be shunted down to the Don, and there unloaded at the risk of the owner, and $3 collected for shunting, as well as cost for unloading. It is really surprising that he contents himself with merely sending the cars only about three miles back on the same route by which they came here; why not send them down, say to Port Hope, as the lumber might be shipped by water from there on the opening of navigation?

In my last letter I stated that the G. T. R. Co. only charged single rates on all excess weight over 24,000 lbs., but this is done away with, and the same rates are now charged as by the N. & N. W. R. Co., that is to say, on the first ton over 24,000 lbs. single rates, all over that, double. It is said, by those who profess to know, that the traffic agent of the N. & N. W. R. has interviewed the G. T. agent, and (to use a rather vulgar phrase) has said, "now, you scratch my back and I will scratch yours," and between them both they claw the pockets of their customers quite lively. Now, there is doubtless a distinction to be made between the highwaymen who coolly orders a man to stand and deliver, and a company that forces from their patrons money which they have not honestly earned, but I must confess that, so far as I can view it, it is a distinction without a difference; however, to close it up, I would say that if the lumbermen stand and merely groan at this kind of treatment, they deserve all they get, and more.

Since writing my last letter, sawn lath has taken a sudden jump upward in price, and may now be quoted at $2.50 per M., from the yards, and few to be got at that. The yards have a fair stock of most kinds of lumber except 2×8 and 2×4. This kind of stock is extremely small in quantity at all the yards.

In a former letter I promised to give you a description of the wood working and planing factories in this city, and I will now endeavor to redeem that promise, to the best of my ability, in this and future letters, taking them in the order which their importance merits:—The firm of J. P. Wagner & Co., situated on Adelaide street west, between Bay and York Streets, is doubtless the most complete of its kind in the Dominion. Their new factory has only been erected two years, and is a most imposing structure, covering a space of 62 feet on Adelaide street, by 186 feet in depth, to Boulton street; it is five storeys high, and the total number of superficial feet in this building is 26,848, and all taken up fully by machinery and workmen. The total number of men now employed is about 125, to be largely increased in the coming spring. Everything new in the way of labor saving machinery is to be found in this building, and the quality of work turned out by this firm cannot be surpassed on this continent. Sashes, doors, blinds, stairs of the most elaborate designs, all ready to be put in their proper places, meet the eye at every turn. Wood turning, carved work, and scroll work, in neat designs, are here to be seen, and last, but not least, piano key boards, of the most durable and costly finish. This branch of their business is fast increasing, as they have now 25 men constantly employed in this department alone, and expect shortly to double that number. Previous to the N.P. coming in force, nearly all of this kind of work was imported, but now this firm are turning out piano key boards, equal in finish, durability and elasticity to the touch, to any heretofore imported from the United States. At least so say those who should know whereof they speak; and in fact the entire factory is carefully conducted under trained foremen, and the careful supervision of the members of the firm, and should any of your readers, on a visit to this city, desire to see for themselves, they will find the senior member of this firm ever ready to extend the same courtesy to them as shown to your correspondent, by showing them through their factory.

MONTREAL.

From Our Own Correspondent.

FEB. 23.—Work in the shanties is progressing favorably, and if there is sufficient water in the spring to float down all that has been cut, the stock of lumber this season will be large. Prospects for shipping on the opening of navigation are fair, but the quantity may probably not reach the figures of 1881. There is no likelihood of higher rates of freight to South America, any advance would enable shippers to export as cheaply *via* New York. The demand for lumber here for the past two weeks has been very quiet, but no change has taken place in quotations since our last report, but as stocks here are light, holders are very firm in their views. We continue to quote:—

Pine, 1st quality, ₱ M.	$35 00@40 00
Pine, 2nd " ₱ M.	18 00@24 00
Pine, shipping culls, ₱ M.	14 00@15 00
Pine, cull deals, ₱ M.	8 00@12 00
Pine, mill culls, ₱ M.	5 00@ 8 00
Spruce, ₱ M.	8 00@10 00
Hemlock, ₱ M.	8 00@10 00
Ash, run of long culls out, ₱ M.	16 00@18 00
Bass, " " ₱ M.	16 00@17 00
Oak, ₱ M.	35 00@45 00
Birch, ₱ M.	17 00@20 00
Hard Maple, ₱ M.	18 00@25 00
Lath, ₱ M.	1 50@ 0 00
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M.	2 00@ 0 00

Advices just received by mail from Liverpool state that trade during January was quiet, but business is in a healthier state than it has been for years. Some considerable sales of Quebec waney board pine, averaging 20 inches, have been made at 2s. 6d. per foot, yarded. At auction there have been sales of

St. John Spruce deals, at	£7	15	9 per standard.
Halifax, "	7	15	6 "
Dalhousie, "	7	9	2 "
Ship Harbor, "	7	8	9 "
Quebec waney board pine,		2	6 per ft.

The following are the wholesale quotations in Liverpool for Canadian woods:—

	£.	s.	d.	£.	s.	d.
Quebec Square White Pine, cub. ft.	0	1	6	@0	2	3
Quebec Waney Board Pine	0	2	2	0	2	9
St. John Pine, 18 inch av.	0	1	9	0	1	11
Lower Ports Pine	0	1	2	0	1	5
Quebec Red Pine	0	1	4	0	1	9
Quebec Oak, 1st quality	0	2	9	0	3	0
Quebec Oak, 2nd quality	0	2	3	0	2	6
Ash	0	1	4	0	2	0
Elm	0	1	9	0	2	0
Hickory	0	2	3	0	2	6
Quebec Birch	0	1	4	0	1	8
St. John Birch	0	1	4	0	1	6
Spruce Spars	0	0	11	0	1	2
DEALS—						
1st quality Quebec Pine, stds	19	0	0	20	10	0
2nd " " "	13	10	0	14	10	0
3rd " " "	9	10	0	9	15	0
St. John, N.B., &c., Spruce	7	10	0	7	15	0
Lower Ports Spruce	7	10	0	0	0	0
Spruce Boards	6	5	0	6	10	0
Lathwood, per fathom	2	10	0	4	0	0
STAVES—						
1st quality Quebec Pine, std. mille.	90	0	0	95	0	0
2nd " " "	60	0	0	65	0	0
1st quality Quebec Puncheon	23	0	0	25	0	0
2nd " " "	19	0	0	0	0	0

CORDWOOD.—The very heavy fall of snow which we have had the past week has rather delayed importations. The demand here keeps pretty good. There is, however, no change to note in wholesale prices, which keeps steady at the late reduction. We quote prices at the railway depot, ex cartage:—

Long Maple	$6 00
Short "	5 50
Long Birch	5 50
Short "	5 00
Long Beech	5 00
Short "	4 50
Long Tamarack	4 50
Short "	4 00

OTTAWA.

From our Own Correspondent.

FEB. 23rd.—The past few days' snow falls have revived the drooping spirits of the lumbermen of the Ottawa Valley. The previous ominous soft weather was on a fair way of proving disastrous to the carrying on of operations for the balance of the season. Disheartened contractors in many cases completely suspended work, and broke up their shanties, having found it impossible to procure supplies, the bad roads not permitting their conveyance to the shanties. Not only those engaged in hauling, but also the choppers and square timber makers were compelled to suspend. Fortunately sufficient snow has fallen to allow operations to be commenced again.

The cut, it is thought, owing to the many drawbacks, will fall short of what was anticipated earlier in the season. It will be short in the average size and also in the quality and quantity. In square timber, however, there will be no loss.

Logs are now quoted at $1.65 to $2.00 per standard, duty paid. As in most other seasons, there will be a large number stuck this year in the streams, while quantities will be left in the woods. The following are the principal firms taking out logs in the localities mentioned:—On the Black River—Bronson & Weston, J. R. Booth, Grant & Miller, John Rochester, and McAuchim & Fraser. On the Kippewa—Sherman, Lord & Hurdman, Booth J. Gordon, Oliver Latour, J. & G. Bryson, and the British Canadian Lumbering Co. On the Temiscamingue—Bell & Hickey, Fraser & Screeney, and G. Taggart. There are besides the foregoing quite a number of smaller jobbers.

Pink-eye is playing havoc among the horses in the majority of the up river shanties. It is remarkable that the disease does not effect in such a serious degree the animals in the inland shanties. It is principally those of the concerns along the main river and larger streams that are afflicted. A person travelling one day recently from Fort Eddy to Mattawa, a distance of ten miles, counted sixteen carcases of horses that had succumbed to the disease. Some firms have engaged the services of competent persons in order that they may be on hand to work when fit. The outbreak of this disease is attributed by some to the unbroken weather this winter. It is known for a fact that during the cold spell that preceded the late thaw the disease died out considerably, but it appeared again when the soft weather set in. Some shanties have as many as twenty-five or thirty horses laid up just now with the disease. This will also tend to diminish the production of logs.

The concerns here report no sales lately, but next month will tell a different tale, as spring orders will then begin to be received.

J. R. Booth's mills are undergoing extensive repairs this season, as are also a number of the other mills.

Baldwin & Co.'s and Almer's mills, recently damaged by fire, are being reconstructed rapidly, and will soon be in operation again.

BRACEBRIDGE.

From Our Own Correspondent.

FEB. 25.—The hauling for the two weeks previous to this one has been almost at a standstill for want of snow, but the recent fall has made things more lively for the present week, but it was impossible to get all the hired teams back again into the woods. For this reason there will probably not be as much got out as was anticipated in the earlier part of the season.

David McLelland, a jobber for the Georgian Bay Lumber Company, who is well known here and has been in the business for many years, was thrown from his cutter on Feb. 14th by his horse running away, and was killed.

A company to be known as the Midland and North Shore Lumber Co., some of the members of which are Messrs. D. Ullyott, G. A. Cox and J. Bertram, of Peterborough, has been recently formed. They have purchased the Guelph Lumber Co.'s property in the Parry Sound District. It is said that they have paid $140,000 for the mill and limits. The limits are well timbered, and there is no doubt that it is a good purchase.

MIDLAND.

From Our Own Correspondent.

FEB. 25.—The British Canadian Lumber and Timber Co. is erecting here another large mill with a capacity of about 100,000 feet a day, to be ready by the first of May. They are also making extensive improvements in their other two mills, and expect to cut about 36,000,000 feet in the coming season.

The other mills are all fitting up ready for a start as soon as navigation opens.

The B. C. L. & T. Co. are also rebuilding their tug, the *Minnie Hall*.

ST. JOHN, N. B.

From Our Own Correspondent.

FEB. 20th.—It is quite safe to assert that that remarkable personage "the oldest inhabitant," cannot call to remembrance the time during the history of the deal trade at this port, when the stock was so completely "cleaned out." For the next month or so, therefore, little can be said in connection with the trade here that will be of interest to your readers.

In our last report reference was made to the probable over-supply of snow for carrying on logging operations; a heavy thaw has since somewhat changed the position of matters in this respect, and from all we can learn there is little to complain of now regarding the conditions for hauling in the lumber woods. Some localities, of course, have more snow than others, but the presumption is that the work can now be carried on with vigour throughout the country generally, with a fair prospect of a good supply of water in the spring for bringing the logs out of the streams.

FREIGHTS.

In consequence of the exhaustion of our stock of deals there is no demand for shipping, hence our freight market is for the time virtually closed. The only charter we hear of since last report is the *Buteshire*, 967 tons, for Barrow, Liverpool, Bristol Channel, Dublin or Glasgow, at 61s. 3d.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows:—

For Europe	1,211,000 Sup. feet.
" United States	647,006 "
" Australia	847,000 "

No shipments of sugar box shooks for Cuba this term.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations:—

Fidelia, 450, Cuba.
Buteshire, 967, United Kingdom.
Alfarin, 446, ——
Grace E. Cann, 683, E. C. Ireland.

BOSTON.

FEB. 18.—The *Journal of Commerce* says reports coming in are of the most encouraging character. Even at present there is a remarkably good demand, and it would probably be larger were it not for the very uncertain weather which prevents indulging in future operations to any great extent. The export demand is reported better than for many years at the same period. From all the western trade centres the most flattering reports continue. In Chicago, during the last two weeks, the shipments show an increase of 200 per cent. over the same period of last year. On all sides it seems to be agreed that the prospects for a good spring trade were never better. In this market, at present, there is a dull feeling in birch and maple. Aside from this there seem to be no weak points. With this state of things it seems probable that values will increase materially before spring has well advance. Hard woods continue firm and strong. Our quotations are for carload logs:—

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

CHICAGO.

FEB. 15.—The *Northwestern Lumberman* says: If the wholesale lumber dealers of the city are not satisfied with the present condition of trade, and the outlook of business, they should give up the vain and illusory things of earth and retire to the cloister, for nothing material could satisfy them. Inquiry at the leading yards convinces one that for the time of the year trade is heavy. One familiar with the lumber district can see by walking through it that the outward movement of stocks is brisk and continuous, without making any inquiry. As an evidence of how large the shipments are, it is noted that from one of the principal yards is daily run out from 40 to 45 cars. The same concern will, if trade maintains its present volume, ship 5,000,000 feet of lumber the present month. Other yards are doing proportionately well. The continuance of this remarkable spring-like weather, and the improvement of country roads,

will tend to still further increase the volume of trade. The prospect is that before navigation opens there will be a lively scrambling after lumber to re-supply the broken stocks of common boards, piece stuff, strips, etc., such as was never before seen at the close of the winter season. Of course under the circumstances prices are exceedingly unyielding.

The prospect for higher prices in the spring has set the farmers to buying barn stocks in advance of the time of building. Many are purchasing lumber that they do not intend to use till next fall.

Two vessels arrived at the port of Chicago on the 16th of February, one being loaded with lumber from Muskegon, and the other with railroad ties. It now looks as though forest products would reach Chicago during each month of 1882.

Receipts and shipments of lumber and shingles for the week ending February 16, 1882:—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882.....	6,966,000	1,180,000	37,128,000	6,390,000
1881.....	2,640,000	1,040,000	15,913,000	9,492,000

Receipts and shipments of lumber and shingles from January 1 to and including February 16:—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882...31,798,000		8,702,000	157,504,000	48,085,000
1881...27,807,000		8,831,000	95,258,000	46,572,000
Inc.. 3,991,000			62,246,000	1,513,000
Dec..		129,000		

STOCK ON HAND FEBRUARY 1.

	1882.	1881.	1880.
Lumber.....	471,350,108	444,922,272	403,981,900
Shingles.....	200,800,347	186,790,000	171,495,000
Lath	46,691,923	47,282,560	44,710,165
Pickets.....	3,082,823	2,426,482	2,041,351
Cedar posts.	183,469	90,700	326,731

ALBANY.

FEB. 16.—Quotations at the yards are as follows:—

Pine, clear, ₱ M.....	$53 00@63 00
Pine, fourths.....	48 00@58 00
Pine, selects.....	43 00@53 00
Pine, good box.....	19 00@31 00
Pine, 10-in. plank, each.....	00 38@00 44
Pine, 10-in. plank, culls, each.....	00 19@00 22
Pine boards, 10-in.....	00 26@00 28
Pine, 10-in. boards, culls.....	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M.....	25 00@30 00
Pine, 12-in. boards, 16 ft.....	25 00@30 00
Pine, 12-in. boards, 13 ft.....	26 00@28 00
Pine, 1¼ in. siding, select.....	38 00@40 00
Pine, 1¼-in. siding, common.....	15 00@18 00
Pine, 1-in. siding, select.....	40 00@42 00
Pine, inch siding, common.....	16 00@19 00
Spruce, boards, each.....	00 00@00 19
Spruce, plank, 1¼-in., each.....	00 00@00 20
Spruce, plank, 2-in., each.....	00 00@00 30
Spruce, wall strips, each.....	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each.....	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each.....	00 00@00 10
Ash, good, ₱ M.....	35 00@40 00
Ash, second quality, ₱ M.....	25 00@30 00
Cherry, good, ₱ M.....	60 00@70 00
Cherry, common, ₱ M.....	25 00@35 00
Oak, good, ₱ M.....	38 00@43 00
Oak, second quality, ₱ M.....	20 00@25 00
Basswood, ₱ M.....	22 00@25 00
Hickory, ₱ M.....	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M.....	25 00@28 00
Chestnut, ₱ M.....	35 00@40 00
Shingles, shaved, pine, ₱ M.....	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine.....	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed.....	0 00@ 3 25
" cedar, XXX.....	0 00@ 4 00
" hemlock.....	0 00@ 2 25
Lath, hemlock, ₱ M.....	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 00

OSWEGO, N.Y.

FEB. 20th.—The following are the quotations:—

Three uppers.....	$42 00@45 00
Pickings.....	32 00@35 00
Fine, common	20 00@25 00
Common.....	14 00@18 00
Culls.....	11 00@13 00
Mill run lots.....	17 00@22 00
Sidings, selected, 1 inch.....	30 00@33 00
1¼ inch.....	30 00@38 00
Mill run, 1x10, 13 to 16 feet.....	16 00@20 00
selected.....	20 00@25 00
shippers.....	15 00@16 00
Culls, selected.....	22 00@30 00
Culls	10 00@13 00
1x6 selected for clapboards.....	25 00@40 00
Shingles, XXX, 18 inch, pine.....	3 75@ 3 90
XXX, 18 inch, cedar.....	3 00@ 3 25
Lath.....	1 40@ 1 50

BUFFALO.

We quote cargo lots:—

Uppers.....	$46 00@48 00
Common.....	18 00@19 00
Culls.....	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers.....	$40 00@45 00
Common.....	17 50@20 00
Culls.....	11 50@12 50

GLASGOW.

The *Timber Trades Journal*, of February 4th, says:—Little has been added to stock during the first month of the year. It is well known that a considerable consumption is going on here at present, but purchases, as a rule, are seldom made freely until the spring reveals the position of buyers more clearly.

An auction sale was held at Greenock on the 26th ult., prices realized at which are noted below. There was a good attendance, and transactions were to a moderate extent, about 600 logs, besides various parcels of deals, changing hands.

The collection of the strayed timber carried away in the late gale is being vigorously prosecuted, with fair success. The recovery of so much wood, however, and especially of the hardwood, is necessarily tedious and expensive.

This market at present has a good opening for spruce deals, of which there are very few on hand, and recent prices have ruled high.

Statistics of shipbuilding on the Clyde continue to be of a cheering character; fourteen vessels, summing up to 24,880 tons, have been launched during the month of January, an output more than double that of January, 1881; and it is reported that a number of new contracts have recently been booked.

On the 26th ult., at Greenock, Messrs. Edmiston & Mitchells, brokers:—

Quebec waney boardwood, 35 c. ft. av. per log, 23d. c. ft.
Michigan do., 57 ft. av. per log, 29½d. to 30½d. c. ft.
Quebec yellow pine, 35 to 65 c. ft. av. per log, 20d. to 22½d. c. ft.
Do., 22 & 25 c. ft. av. per log, 16d. c. ft.
Quebec Red Pine, 35 c. ft. av. per log, 15d. c. ft.
Quebec Ash, 40 c. ft. av. per log, 18d. to 20d. c. ft.
Quebec 1st pine deals—

12 ft.	11×3	27d.	per cub. ft.
Quebec 3rd pine deals—			
16 ft.	11×3	13½d.	"
13 to 15 "	11×3	13½d.	"
9 & 10 "	6/18×3	12½d.	"
Quebec 3rd pine ends—			
7 & 8 "	9/22×3	12d. to 12½d.	"
Quebec unclassed pine deals—			
13 ft.	11×3	12½d.	"
12 & 13 "	7/19×3	11¾d.	"

The Australian Trade.

Messrs. Gemmell, Tuckett & Co.'s timber report, dated Melbourne, December 20th, says that a considerable amount of business has been carried through, both privately and at auction.

AMERICAN LUMBER.—Sales comprise parcels ex *Grace Deering*, *David Brown*, *Olustee*, *Wylo*, and ex *Melrose*, Michigan clear pine being quitted at £18 7s. 6d. to £18; Canada do., £15 10s. to £17 17s. 6d.; w. p. shelving, £14 15s. to £15 5s.; w. p. t. and g. ceiling, £12 17s. 6d., to £12 15s.; whitewood flitches, £16 5s. per M. ft. super.; the trade holding light stock.

WASTE OF TIMBER.

To the Editor of the Canada Lumberman:

SIR,—Enclosed you will find amount of my subscription. I like your paper very much, as I am interested in the timber business, and I fully agree with you and others concerning or referring to the wholesale slaughter of timber practised at present all over the Dominion. In fact I have quite a sympathetic feeling for timber, and grieve to see it wasted, and I am afraid timber can never be planted to make it grow as nature plants it.

I am encouraging others to take your paper.

Yours truly,

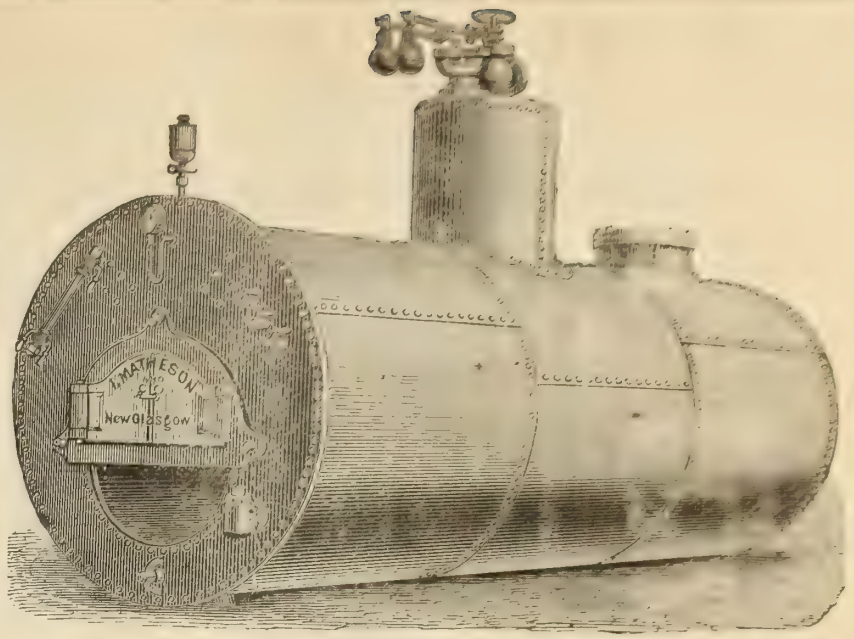
A. BURROWES.

Woodstock, Feb. 16, 1882.

IT is stated that Oshkosh planing-mill men are to have a depot in Chicago to which surplus stocks of sash, doors, blinds and mouldings will be shipped for sale.

"I DON'T WANT THAT STUFF," is what a lady of Boston said to her husband when he brought home some medicine to cure her of sick headache and neuralgia which had made her miserable for fourteen years. At the first attack thereafter, it was administered to her with such good results, that she continued to use it until cured, and was made so enthusiastic in its praise, that she induced twenty-two of the best families in her circle to adopt it as their regular family medicine. That "stuff" is Hop Bitters."—*Standard.*

MACK'S MAGNETIC MEDICINE—the great brain and nerve food—will restore lost nature to young, middle-aged and old. Life is too short to waste away. Read the advertisement in another column, and if you are afflicted make no delay in procuring the cheapest and best medicine ever sold.



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Vegetable Balsamic
ELIXIR!
This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz:
Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,
and every species of oppression of the Chest and Lungs. In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that
CONSUMPTION
is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry; then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all morbid irritations and inflammation from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,
IT HEALS THE ULCERATED SURFACES
and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent articles, which are of so drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the CAUSE, generally destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price 25cts. and $1 per bottle. Sold everywhere.
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MONTREAL, P. Q.

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Wrought Iron Shanty Cook Stoves

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use.** These Stoves are made of **Heavy Sheet Iron**, the top and lining of the fire-box being of **Heauy Cast Metal** and all the connecting parts of substantial **Wrought Iron Work.** The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 24 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business. Very truly yours, GEO. HILLIARD, M.P.

EVERY STOVE GUARANTEED

All the necessary TINWARE and CUTLERY for Shanties supplied at the Lowest Prices. 1L7

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The Work Produced at my Foundry is acknowledged to be equal to any in the United States, and Superior to any in Canada.

☞Orders from the Country Promptly attended to.
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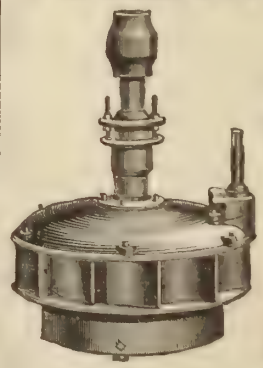

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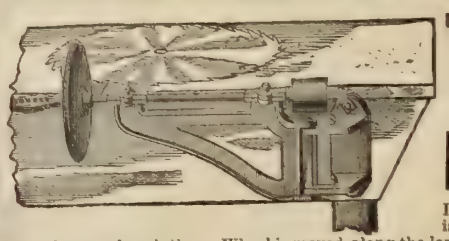

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Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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BOILER FLUID COMPOUND.

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This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

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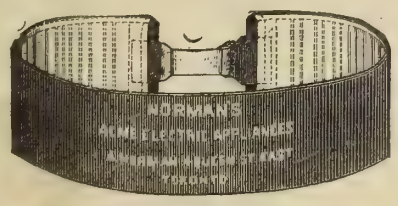

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Spinal Complaints, General and NERVOUS DEBILITY, Rheumatism, Gout, Nervousness, Liver, Kidney, Lung, Throat and Chest Complaints, Neuralgia, Bronchitis, Incipient Paralysis, Asthma, Sciatica, Sprains, Consumption, Sleeplessness, Colds, Indigestion.

Ask for Norman's Electric Belts and you will be safe against imposition, for they will do their work well and are cheap at any price.

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Numerous of such testimonials can be seen at my office, proving that they are doing a good work and worthy the attention of all sufferers. Circulars free. No charge for consultation.

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NOISELESS ROLLER MILL

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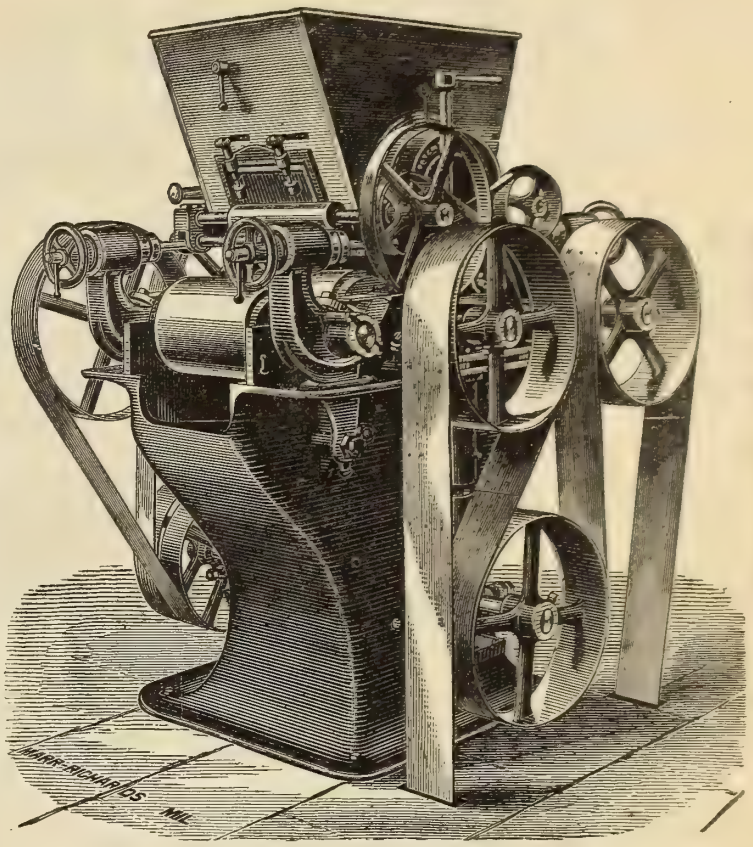
Every Mill a Success!

CORRUGATIONS of all Descriptions. Smooth Iron or Porcelain ROLLS.



These Roller Mills are used by all the Representative Millers of the United States.

The Machine is Perfect in all its adjustments, and RUNS WITHOUT NOISE.

It is doing Better Work than any other Machine in use.

Automatic Lubrication of Principal Bearings.

Driven entirely by BELTS.

Differential Speed always insured.

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SOLE LICENSEES FOR DOMINION.

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BOILER FEED PUMPS,
AIR AND CIRCULATING PUMPS,
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MINING PUMPS,
PUMPS SPECIALLY ADAPTED for
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Latest Improved Spool and Bobbin Machinery.
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We are the most Extensive CLOTHIERS in Canada.

We carry a STOCK of FIFTY THOUSAND DOLLARS to choose from.

We watch the interest of our Customers. Our stock is FULL of the very best goods in Scotch, English and Canadian Tweeds.

We BUY and SELL for Cash, therefore it enables us to do business on very SMALL PROFITS.

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Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.
HOYT'S CELEBRATED LEATHER BELTING.
COTTON BELTING, for Flour Mills. &c., Superior Quality.

DISSTON'S CELEBRATED MILL SAWS.

Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 1L21

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IS THE RIGHT HOUSE FOR

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No Shoddy Cloths used. All Goods Manufactured on the Premises.
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Men's Flannel Shirts and Durable Underclothing.

ORDERS SENT WITH MONEY PROMPTLY ATTENDED TO.

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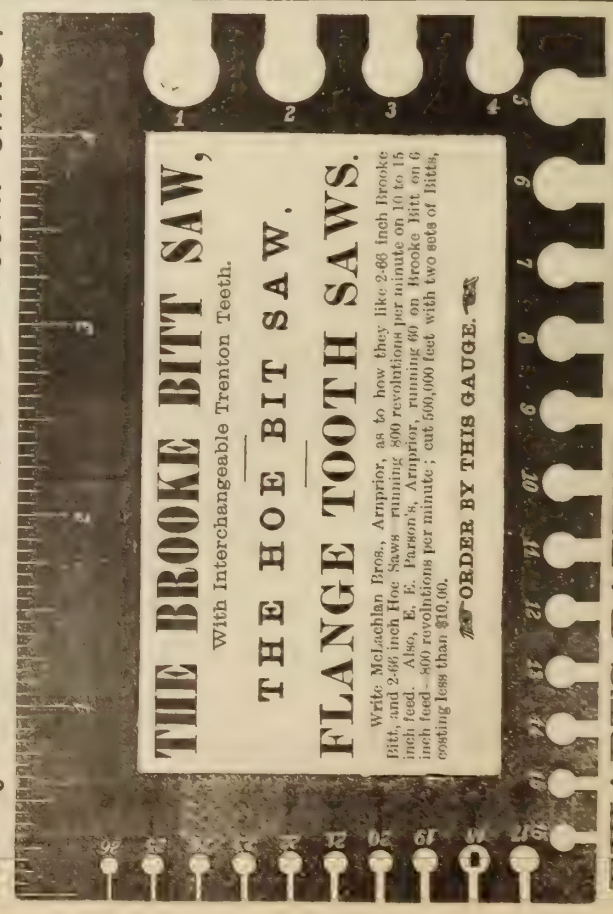
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THE HOE BIT SAW.
FLANGE TOOTH SAWS.
Write McLachlan Bros., Arnprior, as to how they like 2-66 inch Brooke Bitt, and 2-66 inch Hoe Saws running 800 revolutions per minute on 10 to 15 inch feed. Also, E. E. Parson's, Arnprior, running 60 on Brooke Bitt on 6 inch feed—800 revolutions per minute; cut 500,000 feet with two sets of Bitts, costing less than $10.00.
☞ORDER BY THIS GAUGE.☜

EWART'S PATENT DRIVE CHAIN
FOR SAWDUST CARRIERS, LIVE ROLLS, TRIMMERS and REFUSE CARRIERS.

BROWN'S PATENT SPALT MACHINE

Cuts three perfect Shingles out of inch board. Cuts Shingles out of slabs and all manner of refuse. Will soon pay for itself around any large Mill.

AUTOMATIC GANG TRIMMERS, SIX SAW EDGERS, and the most improved Saw Mill Machinery. PORTABLE SAW MILLS OUR SPECIALTY.

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Address, WATEROUS ENGINE WORKS CO., Brantford, Canada.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President. JAMES T. BARNARD, Hamilton, Secretary-Treasurer. SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERTSON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

ILII

EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS
TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eigths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ⅝ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ⅝ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } Holes, ½, ⅞ and 1 inch.

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 105

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CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

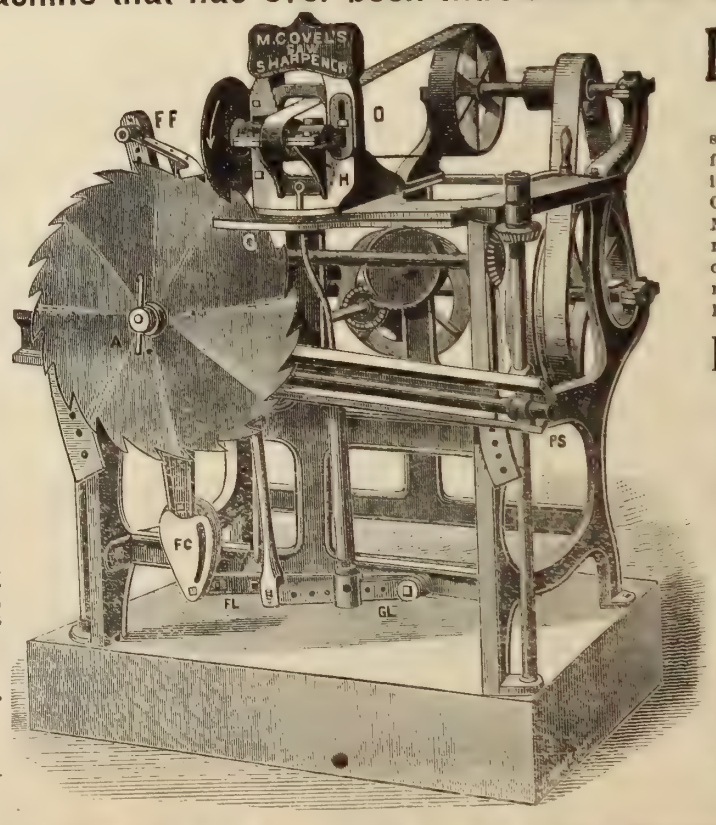
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.

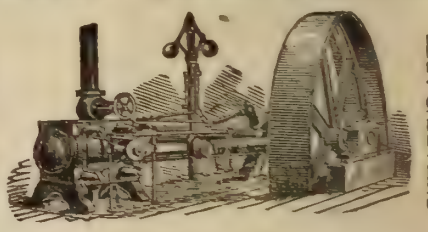


MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS

CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1tf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM

VOL. 2. PETERBOROUGH, ONT., MARCH 15, 1882. NO. 6.

Upon splitting a white oak tree recently cut down in Nevada county, California, there was found imbedded in the heart of the trunk, sixty feet above the roots, a granite bowlder weighing about two pounds. Years ago, when the forest giant was a sapling, some aborigine must have placed the rock between the main shoot and one of its small branches.

The *Lumberman's Gazette* of Bay City, Mich., says that in order to give our readers some slight conception of the future outlook we may simply state that R. H. Wedeman & Co. are putting an extra quality of logs in the river at the city by rail and have refused an offer of $17 per thousand, demanding $20 for them, with a good prospect that their demand will be acceded to.

The Chatham, N.B., *World* says that Messrs. Whalen & Dunn, on the South branch, are getting out a large quantity of logs for the Hon. Wm. Muirhead. Mr. D. McLaughlan is also hauling a large quantity for Messrs. Guy, Bevan & Co. Messrs. Daniel Sullivan & Wm. O'Brien are hauling for Mr. Robert Swim. Mr. B. N. T. Underhill and Mr. J. L. Murray are lumbering extensively on the Renous and Dungarvan for Mr. Snowball. There are, also, several smaller operators. Mr. McLaughlan has 180 men and 92 horses in his camps. It is estimated that the total haul will be nineteen millions.

PINE IN THE U. S. LAKE REGION.

There has recently been published a report by Prof. Sargent, of Michigan, on the States' forests in the neighbourhood of the Great Lakes containing matter of interest for Canadians as well as their cousins. It states that, according to the carefully digested estimates of the U. S. Census office, the forests of Michigan, Wisconsin, and Minnesota contained in the spring of 1880 some eighty-two billion (82,010,000,000) feet of merchantable pine; and that the pine cut in these three states reached during the census year a total of over seven billion (7,035,507,000) feet. At this rate of destruction these States would be stripped of their pine forests in less than twelve years. It is admitted that some small and scattered lots may hereafter be discovered which may prove the above stock estimate to have been rather low. But there seems to be no doubt that in any event the stock cannot last longer than is anticipated should the rate of consumption increase in the future as it has done in the past. The total production during the last census year, including also hardwood, reached 7,145,969,000 feet, or an increase of eighty-three per cent. of production in 1880 over 1870. A much smaller rate of increase would leave no doubt of the consumption of all the remaining stock in a much smaller period than is supposed. The effect of the destruction of the forests, and with them of the lumber trade, of these regions cannot fail to be a serious blow to their prosperity, to say nothing of the inconvenience to which the want of a similarly large supply must subject them. Chicago is now the greatest lumber centre the world has ever seen. More than one billion eight hundred million feet of sawed lumber entered it by rail and lake during 1881. Its shipments reach the Atlantic and to beyond the Rocky Mountains. The Chicago Lumber Exchange regulates the lumber trade of the Union; but if these statistics be correct, as there seems no doubt they are, it will not long do so. On the prospect to the States generally, the N.Y. *Nation* writes as follows:—

"An increase of consumption of eighty-three per cent. in ten years, or even of seventy per cent. (which is probably nearer the correct figure), is alarming. Nevertheless, the rate at which these forests will disappear will, we believe, be much greater in the near future. The almost entire exhaustion of the pine supply of Maine, New York, and Pennsylvania; the greater facilities which the improvement of the rivers, and the general introduction of short logging railroads and tramways, afford for getting out logs from regions which ten years ago were still either entirely unknown or considered so remote as to be beyond the reach of profitable markets, indicate that, rapid as has been the removal of these forests, the rate of future destruction must be much greater. It is probable that the annual production of pine lumber in these three States will increase considerably during the next five, or perhaps eight, years, and that it will then cease suddenly, and almost entirely. We do not wish to be understood to prophesy that at the end of eight years no more pine lumber will be manufactured in Michigan, Wisconsin, or Minnesota. Pine in small quantitions will continue to grow in these States, and pine lumber will probably be manufactured there always. What we intend to say is, that at the end of eight, or perhaps ten, years the pine forests of these States will have been so nearly exhausted that their production will have ceased to be of any national importance, and will not be available for more than mere local supply.

No steps have ever been taken to preserve or perpetuate these forests. Their destruction has been wanton, short-sighted, and stupid. The goose which has laid so many golden eggs, and has built up cities and fleets and great traffic lines, is dying. There can be no future for much of the immense region from which these pine forests have been removed, and it must remain a desert until generations of humbler plants shall have made another crop of pine upon it possible. Nature is slow to forgive any infringement of her laws, and the great-grandchildren of the men who have destroyed these forests will not live to see the shores of the great lakes covered again with pine forests fit for the axe. A wiser policy and a different management might have secured permanent supply, with greater, or as great, individual profit. The north-western lumberman in his march to the north has made a clean sweep before him. If any tree escaped his rapacity, the fires, which have everywhere followed in his wake, destroyed it, and destroyed, too, the ability of the soil to produce pines again. Had he selected only trees of a standard size to cut, leaving all young trees to grow up and sufficient old trees to furnish the ground with seeds for new crops; had he excluded fire from the partially-cut woods, these pine forests might have been preserved indefinitely, and been made to yield crop after crop, and far greater aggregate returns than have now been obtained from them."

Now here is a lesson for Canada. Lumber is our great staple, and the destruction of our forests would leave us in a still worse position than the destruction of the western forests will leave the Western States. It is confessed distinctly that their destruction has been the fruit of the policy which leaves every man to do "that which is right in his own eyes," in full confidence that the result will be to the general good. With such an admitted failure of the system before us, it is time that we should turn aside from it in the case of our forests, as we have been forced to do in the case of fish and game. Let some system of inspection be established whereby young timber will not be destroyed, and whereby a new growth will be secured on lands fitted for no better destiny than forest lands; and, if it be practicable, let some precaution against fires be taken. If we mistake not, these things have been done in European timber-producing countries, and if so they can be done here, if our rulers will turn to the work with a view to help their country, to assist each other in discovering the truth, and to put it in practice. The lumber trade has always been Canada's golden egg; and it must grow in value if we can only save it from the fate which apparently awaits that of our neighbours.—*Mail.*

MIDLAND & NORTH SHORE LUMBERING COMPANY.

Public notice has been given that, under the "Ontario Joint Stock Companies' Letters Patent Act," Letters Patent have been issued under the Great Seal of the Province of Ontario, bearing date the seventeenth day of February, 1882, incorporating Dalton Ullyott, of the Town of Peterborough, in the County of Peterborough and Province of Ontario, Lumber Manufacturer; George Albertus Cox, of the same place, President of the Midland Railway of Canada; Alfred Passmore Poussette, of the same place, Solicitor, one of the Managers of the Peterborough Real Estate Investment Company (Limited); Robert Charles Smith, of the Town of Port Hope, in the County of Durham, Lumber Manufacturer; and John Augustus Barron, of the Town of Lindsay, in the County of Victoria, Barrister-at-Law; for the purpose of the acquiring of pine timber limits and lands in the Province of Ontario, by purchase or otherwise; the conducting of the business of lumberers and timber merchants, including the purchasing, preparing, manufacturing, transporting and selling of timber, lumber, shingles, lath and pickets, broom handles, matches, pulp, doors, sashes and blinds, pails, tubs, and wooden ware, furniture, agricultural implements, mouldings, boxes, railroad and other cars, ties, cordwood, fence rails and posts, telegraph poles, staves and barrels, axe handles, waggons, carts and lumber dryers; the building of vessels, ships and boats, docks and piers; the planing and dressing of lumber and the erecting and purchasing of mill privileges, water powers, mills, saw mills, buildings, machinery, coves, booms, booming-grounds, utensils, horses, cattle, boats, vessels; the making and working of roads, tramways, and channels of water; the conducting of the business of flour and grist-milling, foundry, machine, and blacksmith's shops, farming, stock-raising, horse-breeding, and the purchasing of lands and buildings necessary to carry on such business; the manufacturing of oat and other meals, lime-burning, and the erecting and purchasing of flour and grist mills; the manufacturing of axes and tools, and the erecting and purchasing of shops therefor; the conducting and carrying on of the business of a general wholesale and retail store; of mining for gold, phosphate, and other minerals; and of the quarrying for stone and smelting of ore; and of cotton, woollen and carding mills; and of the right to subscribe to and take stock in booming and river driving companies and associations; and owning or leasing of railroad cars for transportation purposes; and the right to purchase and do everything necessary for the conducting and carrying on of the said business; the borrowing on the security of their own debentures, or otherwise, such sum or sums of money as may be necessary for the carrying on of said businesses, and that with or without security; the purchasing and selling, making and endorsing of bills of exchange and promissory notes; the investing in the security of mortgages on real estate in the Province of Ontario, or upon the debentures of any municipal corporation in the Province of Ontario, or upon the debentures of any company incorporated by any special or general Act of the Dominion of Canada or the Province of Ontario, doing business within the Province of Ontario, or any part or portion of the profits arising out of the said businesses, for the purpose of repayment of the capital invested; and do all other things whatsoever incidental to the aforesaid business, by the name of "The Midland and North Shore Lumbering Company," with a capital stock of one million dollars, divided into ten thousand shares of one hundred dollars each.

FOREST CULTURE.

To the Editor of the Canada Lumberman:

SIR,—I am glad to see by the last issue of the LUMBERMAN you so kindly sent me that the subject of forest culture and the restoration of our forests is beginning to receive a little attention in the public press. But I am afraid it will be a long time before the subject will be so thoroughly impressed on our people that they will force our government to take action in this matter. As yet, the most prominent idea with our people and our government seems to be how to get rid of our forests the quickest and most easily. Forests are regarded as yet rather in the light of an encumbrance to the development of the country than as a blessing of a kind Providence. While every advantage is taken of our hitherto abundant supply of timber, no effort is made made in the way of replanting.

Were the scarcity of timber and wood the only injury to result from the wholesale destruction of our forests now going on from one end of the Dominion to the other, I would quietly let matters go on as they are, but when I consider the injurious effect this exploitation of our forests has on the climate and the productive power of our soil, I think it my duty to raise my feeble voice with others in the hope of being able to arouse public attention to this subject. The experience of the old world has been so sad that every effort should be made to avoid repeating it on this continent.

The Government of this Province has a large area of public lands, large tracts of which are unfit for cultivation, still in its charge. Every effort should be made to induce the government to undertake the improvement of these tracts by replanting them with valuable timber where they have been bared either by the lumberman's axe or by fire. To allow them to be grown over with worthless or inferior timber, while valuable timber might as easily be grown on them, would be criminal neglect. Our Government has a large surplus on hand, and could not invest it better than by organizing a department of forestry and replanting the townships that the surveyors report as being burnt over, with valuable timber. If $50,000, or $100,000, were expended each year in this way it would prove of far greater benefit to the Province than the millions wasted on competing railways that are now swallowed up by the trunk lines.

I hope the LUMBERMAN will continue its efforts in enlightening the public on the important subject of forestry, and that good may result in the end is the hope of

Yours truly,

A. EBY.

Sebringville, March 3rd, 1882.

MASTER AND SERVANT'S ACT.

The following petition is being circulated among the trade for signature:—

To the Honourable the Minister of Justice for the Dominion of Canada.

The petition of the undersigned lumbermen and mill-owners of the Dominion of Canada humbly sheweth:

1. That your petitioners are largely engaged in the manufacture of sawn lumber and square timber in the Dominion of Canada, and in the prosecution of their said business are obliged at great expense to procure laborers at a distance and bring them to the point at which the said logs and timber are to be got out, and for that purpose have to make advances in money to such laborers.

2. That by an Act of Parliament of the Dominion of Canada, 40 Victoria, Cap. 35, passed on the Twenty-Eighth day of April, A.D. 1877, the law theretofore existing was amended and the sections of the Act of the Parliament of the late Province of Upper Canada, intituled "An Act respecting Master and Servant," having reference to the neglecting of employment by servants were with some limitations repealed.

3. That the repeal of the said sections has worked injuriously to the lumber trade of the Dominion of Canada in that there is no safeguard or security to lumbermen, who may, in the course of their business, be called upon to procure workmen at great expense to manufacture and get out saw logs and timber, by the advance to such workmen of the means of taking and conveying them from their respective places of hiring, to the point or points at which the service contracted for is to be performed, or by the payment of money in advance on account of the wages to be earned under such contract of hiring.

4. That Your Petitioners deem it necessary and advisable that such contracts of hiring and service should be placed on the same footing as contracts provided for by Sub-Sec. 3 of Sec. 2 of said Chapter 35.

Your Petitioners therefore pray that a clause such as or to the effect of that following (which is respectfully submitted) should be added to said Chapter 35, by way of an amendment thereto.

"Any person, to whom money has been paid to place him or her in a position to work or perform a contract entered into by him or her, or who may have procured, any other person or corporation to make advances to him or her under a contract of hiring or service, who wilfully refuses to perform such contract or service or wilfully quits or neglects the employment of such person, persons or corporation, who has paid such money or made such advance, so that such person, persons or corporation, shall be deprived of the services of such person, shall on conviction," &c. (as in said Sec. 2.)

And your Petitioners will ever pray."

HOW TO PLANT TREES.

We take from the *Canadian Horticulturist*, published by the Fruit Growers Association of Ontario, the following essay by N. Robertson, of the Government grounds, Ottawa:—

A great deal has been written and said about tree planting. Some advise one way, some another. I will give you my method, with which I have been very successful, and, as it differs somewhat from the usual mode, it may be interesting to some of your readers. I go into the woods, select a place where it is thick with strong, young, healthy, rapid-growing trees. I commence by making a trench across so as I will get as many as I want. I may have to destroy some until I get a right start. I then undermine, taking out the trees as I advance; this gives me a chance not to destroy the roots. I care nothing about the top, because I cut them into what are called poles eight or ten feet long. Sometimes I draw them out by hitching a team when I can get them so far excavated that I can turn them down enough to hitch above where I intend to cut them off; by this method I often get almost the entire root. I have three particular points in this: good root, a stem without any blemish, and a rapid growing tree. This is seldom to be got where most people recommend trees to be taken from—isolated ones on the outside of the woods; they are generally scraggy and stunted, and to get their roots you would have to follow a long way to get at the fibres on their points, without which they will have a hard struggle to live. Another point recommended is to plant so that the tree will stand in the direction it was before being moved; that I never think about, but always to have the longest and most roots on the side where the wind will be the strongest, which is generally the west, on an open exposure.

For years I was much against this system of cutting trees into poles, and fought hard against one of the most successful tree planters in Canada about this pole business. I have trees planted under the system described that have many strong shoots six and eight feet long—Hard Maple, Elm, &c.—under the most unfavorable circumstances. In planting, be particular to have the hole in which you plant much larger than your roots; and be sure you draw out all your roots to their length before you put on your soil; clean away all the black, leafy soil about them, for if that is left, and gets once dry, you will not easily wet it again. Break down the edges of your holes as you progress, not to leave them as if they were confined in a flower pot; and when finished, put around them a good heavy mulch, I do not care what of—sawdust, manure, or straw. This last you can keep by throwing a few spadefuls of soil over; let it pass out over the edges of your holes at least one foot.

I have no doubt that the best time to plant is the fall, as, if left till spring, the trees are too far advanced before the frost is out of the ground; and by fall planting the soil gets settled about the roots, and they go on with the season.

Trees cut like poles have another great advantage. For the first season they require no stakes to guard against the wind shaking them, which is a necessity with a top; for depend upon it, if your tree is allowed to sway with the wind, your roots will take very little hold that season, and may die, often the second year, from this very cause.

All who try this system will find out that they will get a much prettier headed tree, and much sooner see a tree of beauty than by any other, as, when your roots have plenty of fibrous roots, and are in vigorous health, three years give you nice trees.

A HEAVY LAW SUIT.

The Montreal *Witness* says that the Hon. Mr. Church, Q.C., is at present in Ottawa as counsel, with the Hon. Mr. Blake, Q.C., and McCarthy, Q.C., for the respondents in the well-known case of Caldwell vs. McLaren, which is being argued before the Supreme Court of Canada. It will be remembered that Mr. Caldwell and Mr. McLaren owned certain timber limits in Ontario, and that a certain stream passed through, first Caldwell's and then McLaren's property. McLaren's part of the stream, however, was not navigable for logs, and he made the improvements necessary to make it so. Then Caldwell took advantage of of this to float his logs down the stream, through McLaren's property, and the latter took an injunction to stop his neighbor from using improvements which another had made. Mr. Caldwell contended that Mr. McLaren had no such rights over running water as to stop another man from floating down logs on it, but Vice-Chancellor Proudfoot at Toronto gave judgment for McLaren.

The case was carried to the Court of Appeal, and the judges there, by two to one, reversed the Vice-Chancellor's decision. The next step was to the Supreme Court, and this step was taken by Mr. McLaren. Whichever way the judgment is given, it is morally certain that the case will be taken to the Privy Council by the loser.

The law costs in this case, which has been going on for three years, are something enormous, amounting already to about $40,000. The evidence taken in the case is also enormous, about 126 witnesses having been examined. This is the case which gave rise to the famous bill dealing with streams and rivers, which was passed by the Ontario Legislature, but disallowed by the Dominion Government.

A CANADIAN SPEAKS.

When anything worth saying is spoken in that terse and pointed way that bears the impress of honest conviction, we like to have people know the nature of the communication. Of such a nature is the following from Mr. W. F. Haist, Campden P. O., Lincoln Co., Ontario. Mr. Haist says: With great joy over my restored health, I would write a few lines concerning that wonderful remedy, St. Jacobs Oil. For the last six years I have been using various medicines internally and externally, but nothing would help me. Finally I procured a bottle of St. Jacobs Oil, which cured me after a few applications. My mother-in-law, who has also been a great sufferer from rheumatism, was also instantly relieved by the use of the Great German Remedy. St. Jacobs Oil is a great blessing to suffering humanity, and I shall do everything in my power to make known its merits.

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Clearing up the Wind's Work.

In the territory of the big windfall in the Menominee district, the Kirby Carpenter Company's camp had banked up to February 25, altogether 1,500,000 feet of logs, and it is stated that the teams hauled 300,000 feet of skidded logs to the landing in one day. On the same date the Ludington, Wells & Van Schaick Company's two camps in the same territory had cut and hauled 2,800,000 feet. The last named company has 20,000,000 feet of blown down timber in that immediate section.—*Northwestern Lumberman.*

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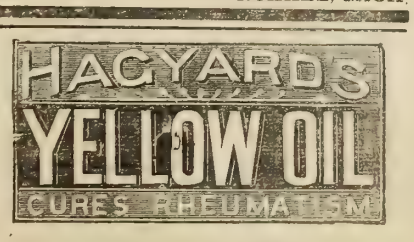

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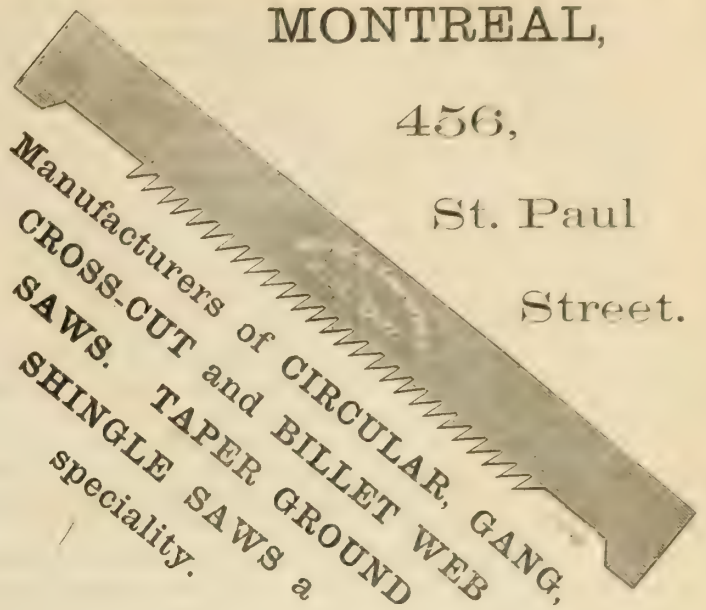

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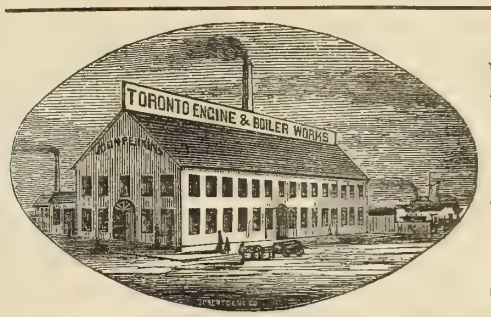

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CLIMATIC INFLUENCE OF TREES.

The following valuable paper was written by Dr. John A. Warder, of North Bend, Hamilton Co., Ohio, and read before the Ontario Fruit Growers' Association, at their convention in the city of Hamilton, Canada, on Thursday, January 19th. Dr. Warder is a recognized authority on forestry, and as a pomologist has few equals, and no superiors, on the American continent. The paper was received with much interest.

MR. PRESIDENT, AND GENTLEMEN OF THE ONTARIO FRUIT GROWERS' ASSOCIATION:—After hearing the paper on Protection to the Orchard, read at the recent Pomological meeting in Boston, Massachusetts (September 15th, 1881), you, Mr. President, conferred upon its reader the honor of an invitation to prepare a lecture for presentation at the approaching meeting of your society at Hamilton, Ontario.

The proposition was accepted with hesitation, partly on account of impaired health, but mainly because of an apprehension that yourself and your worthy confreres, as fruit growers, would be disappointed in the character of the topic selected—The Climatic Influence of Trees. However, after traversing a portion of your beautiful and productive Province in the lovely days of October, and after beholding the wonderful progress that has been made by your citizens in clearing off the dense forests that once clothed your fertile soil, while observing and considering the changes consequent upon converting the woodlands into the farms, the forest into the prairie, the conviction became stronger that the theme must be drawn from that group of topics, which deserve so large a share of the thoughts and consideration of the American farmers and statesmen.

A perusal of such numbers of your valuable transactions as have been kindly furnished by the secretaries of the two leading societies of the Dominion, also assure the writer that such a theme as the one about to be presented may be welcomed by you, and he feels encouraged by finding that on your side, as well as on ours, forestry is becoming an important question, and that, to some of you, as well as to some of us, the sprite will not down—the question must be met; the sooner the better! Nor should the great interests involved in the word be ignored, either by agriculturists or statesmen. It is high time that our attention should be directed to a consideration of the subject in its bearings upon the agriculture of our continent, and its future maintenance and prosperity.

The transactions of the Ontario and Montreal societies already contain evidence of your interest in Forestry, as shown in the valuable papers relating to Canadian Forests by Mr. A. T. Drummond, Mr. Jas. Little, Mr. H. G. Joly, Mr. G. M. Dawson, Messrs. McAinsh, G. Peacock and others, which may be read with profit, and which show that your attention has already been directed into this channel, all of which encourages me to continue. At the same time the intelligence and the familiarity with the subject thus displayed by your own members might well cause a stranger to feel some diffidence and hesitation on entering an arena with which you are supposed to be so much more familiar than a casual visitor. It is however, but a limited portion of the subject which it is proposed to discuss at this time, Mr. President, and, as you are aware, the task is undertaken only after consulting you, and after having received your approval of the discussion of wind breaks and shelter belts and sheltering groves for Ontario.

Reference has already been made to the extensive clearings that have been effected by the generation of men now occupying the inter-lacustrine region of fertile lands in Upper Canada. It seems almost incredible that in half a century or less, so vast a change should have been effected in the condition of this broad plateau, as is evident even from the car windows of the rolling train. Over wide areas the forests that once encumbered them have disappeared, leaving no traces of their former existence in the smooth and wide savannas of smiling fields covered with bountiful crops and beautiful herds. In a brief period the howling wilderness of woods and swamps which greeted and might well have repelled the sturdy settlers, has been transformed by man's persevering industry nto smiling prairie. Wonderful transformation!

The very stumps of the sylvan monarchs have been rooted out, the soil has been tamed of its wildness, and brought into the highest culture over wide tracts; and with the evidence of high farming that so generally prevails, there have come also the improved animals to consume their share of the products, and to aid in maintaining, or even in enhancing, the natural fertility of the soil.

One of the most striking features of the country traversed, next to the apparent fertility of land, was the broad extent of tillage, where large fields made parts of great farms, and these were bounded on all sides by other farms of apparently equal dimensions, lying contiguous to them on every side, or with small intervening wood lots that could rarely be called forest lands, for their limited extent, and their rifled condition would hardly entitle these bits of woodland to be called forests; they are but shadows of their former selves.

Looking out of the car windows on either hand one might behold vistas opened over these fields that extended in many cases for miles without interruption of a grove or a tree, or even a stump or a bush.

Here then, while finding so much to admire in the results of the industry of the settlers, who, in half a century or less, had effected so great a change upon the earth's surface, here a theme was suggested to the traveller for him to present to-day to his friends of Ontario: This is what he now desires to impress and emphasize—The necessity for you to protect yourselves, your cattle, and your crops from the storms of winter. He begs you to begin at once your efforts to modify and to meliorate your climate by restoring barriers against the winds you have invited by too widely opening to them doors of access to your homes. He also begs you, at the same time, while beautifying your country, to provide against the future necessities of the people by producing, in these plantations, future supplies of fuel and lumber, yes! even here, and on these fertile lands this may be done, and by the wisest economy, by planting trees, in protective groves, but especially in wind-breaks and shelter-belts on all your farms.

While occupying even a considerable portion of arable land, that would then be withdrawn from the dominion of the plough, these plantations will, nevertheless, inure to the advantage of the farmer, and of the country, by enhancing the fertility and productiveness of the remainder of the land thus sheltered, as has been demonstrated on the open prairies of Iowa wherever these shelters have been applied.

The whole of the route traversed by the Grand Trunk Railway westward from Kingston, is very happily situated in regard to lacustrine influence, which must greatly modify the climate of the region. The broad surfaces of those great inland seas, Ontario, Erie and Huron, cannot fail to exert the well known effects of large bodies of water upon the atmosphere. It is, however, the region west of Toronto that is most happily situated in this respect, and here, too, the prevailing character of the soil seems to adapt the region to high farming. Here the lacustrine surroundings are most fully developed, and here, while enjoying the advantages derived from this source, the inhabitants must beware how they expose the country to the disadvantages that may arise from a too open exposure to the water. The winds must not be allowed a too free access to the land.

To obviate the effects of the winds, it is advised to plant groves about the farm steadings to the windward sides of barns and sheds, as well as of the dwellings. These should by all means be supplemented by evergreen shelter hedges and screens about the residence and out houses. The fields and pastures should be protected by wind breaks on every farm.

The wind break demands a liberal space, and the planting of numerous trees to make it effective. In a champaign country these shelters should not be more than forty rods apart, nor should they occupy less than four rods in width, though even a single or a double row of trees between two fields will furnish a great deal of shelter, more especially if they be of evergreen species.

The soil should be well prepared by thorough ploughing and harrowing, so as to produce a good tilth; when ready to plant, parallel furrows should be drawn four feet apart, in which to plant the little trees. This close planting is particularly recommended where the use of deciduous trees has been determined upon; but more space may be allowed for the evergreens, and where these are planted in single or double rows, with the trees of one row set opposite to the interspaces of the other, six or eight feet may be allowed. If the evergreens have been planted three or four feet apart at the first, alternate trees can be removed and set elsewhere, when their limbs meet on either side; they will be saleable to your neighbours, or they may be used in the extension of your own shelters. At any rate they will have already served a good purpose by rendering the screen more effective; they have paid their way.

The planting, particularly of evergreens, should be done in the spring, and care should be taken to preserve the roots from exposure to the sun and wind; if these delicate organs be once desicated they never recover.

Planting small trees is a very simple operation, and may be thus performed on land prepared as already directed: A spit of the mellow soil of the furrow is lifted with a spade, the little tree placed, its roots are spread out and the earth from the spade is thrown upon them; this needs to be well prepared with the foot so as to bring it in close contact with the fibrous roots and exclude the air as thoroughly as possible; sufficient mellow soil is then thrown about the tree so that it shall be buried rather deeper than it had been previously. Two men with spades and a boy with trees may constitute a team for this work, and carry two rows. A favorite plan in Iowa is to employ the same force in a single furrow that has been freshly deepened by the plough. One man follows the boy, setting the trees with his hands and tramping with his feet so as to make them stand to the line, while the second follows with a hoe or shovel and draws in the earth. A cultivator or double hand plough is then passed along each side of the row.

The plantation should be well cultivated and kept clean for a few years, longer or shorter, according to the thrittiness of the species, but until the trees shade the ground, when they will take care of themselves. Cattle must be rigidly excluded.

Various combinations of species have been recommended for these belts, but as a rule in forestry it should be borne in mind that evergreens and deciduous trees do not succeed so well when mixed as when each class is massed separately. To this there may be some apparent exceptions: the European larch and Scotch pines, or Norway spruces, are often found in the same group doing well together—so in nature we sometimes find similar admixtures. But all the evergreens would be likely to suffer if they were mingled in a plantation with the rapid growing and unbrageous elms, cottonwoods, maples and other-broad leaved trees. Beautiful and effective for winter as are the evergreen conifers, however, these native deciduous species cannot be ignored, nor should they be neglected nor dispensed with by the farmers who may desire as quickly and as cheaply as possible to produce an effect in the shelter belt. Let such a one begin with the poplars, willows, or with any trees or cuttings that are at hand, always excepting the so-called Lombardy poplar, which, as an ornamental (?) shade (?) tree, already shows its aspiring head in some of the western towns of the Dominion.

Indeed both classes of trees may be happily combined without mingling them promiscuously. They may be planted in the same belt but in separate rows, putting the sturdy native deciduous kinds in a few rows on the outside, using the cotton woods and white willow, etc., which grow freely from cuttings and which rapidly produce an effective screen. Next to these may come the elms, the oaks, maples or white ash, and other kinds. These thickly set will soon rise and form a protection to the evergreens.

Mr. H. G. Joly, in the 6th report of the Montreal society (for 1880), speaks in high terms of his cotton woods, which in twenty-three years had attained the height of sixty feet, with a diameter of twenty-five inches. This is a remarkable growth, truly, and though the timber be not of superior value, the desired shelter is quickly produced; and, as he wisely suggests, it will aid in protecting other trees. One form of the cottonwood is a great favorite in Scotland, where it is called the black Italian poplar, and perhaps the same kind is planted extensively in parts of France, where it is known as the peuplier du Canada.

The European white willow *(salix alba)* is another tree of similar characters, easily multiplied by cuttings, of rapid growth, and largely employed in prairie regions for wind breaks and shelters. When matured these soft woods will be found to have great value for many purposes, though inferior to hardwoods and resinous trees either for lumber or for fuel. The charcoal used in the manufacture of gunpowder is almost exclusively prepared from the white willow.

But your own native trees claim your consideration, and, as appears from your transactions, they have received deserved attention in your discussions. The noble American oak—"Canadian"!—(*quercus alba*) merits the care of all planters, especially in the groves. Though it be rather slow in its early growth, it may be supported by more rapidly growing species that must be gradually removed as the oaks need the space they have occupied. Oaks or their acorns may be planted among the poplars and willows of the outside rows, and they will be ready to spring into a vigorous growth when these pioneers are removed.

The sugar maples will make lovely groves, that will yield their sweet tribute, as well as lend their beauty to the landscape, while living, and furnish valuable timber for fuel when cut down. The invaluable white ash should be much more largely planted in groves and by the roadsides, as it makes a beautiful and most useful tree. The American elm, too, has its uses as timber, and is especially adapted for avenues, where room is given for the development of its wide-spreading and wind-resisting branches. The wild cherry, the black, not the red (*prunus serotina*), is commended for its elegance, its thriftiness and rapid growth, as well as for the great beauty and usefulness of its lumber, which is quickly produced.

In your discussions on the subject of shelter, as reported in one of your volumes, a native tree is named which is well to have recognized for its beauty, as well as for the merits you very properly attribute to it as a bee pasture. The American linden or basswood (*Tilia Americana*), may very well be made a leading component of the home grove; its rapid growth will soon make it effective, and its sweets will certainly be welcomed by the bees. The timber of the linden, too, has its uses, though very soft and inferior to many other species, and its inner bark has a commercial value as the material of bast matting, while the wood is used for paper pulp.

There are many other trees with which you can experiment in your planting, but they need not now be mentioned.

In the selection of evergreens for these shelter groves and belts, the hardy natives of your own country should first claim your attention. Nothing can better serve your purpose than the common white pine (*pinus strobus*), and the red pine (*P. resinosa*). Both are rapid growers when fairly started, and both are well adapted to your soil and climate. For shelter grove or wind break they cannot be surpassed. Next to these and in the same genus come the foreign kinds known as the Scotch (*P. sylvestris*), and the Austria (*P. Austriaca*), which are rugged and thrifty, of great value, both growing and when felled, but not equal to our natives above named, either for their future lumber or in the rapidity of their growth. Neither of these can compare with our natives as ornamental trees, though they are often planted with that end in view. They belong to the forest rather than to the lawn, for which we have lovelier species.

Of spruces you have the natives, the beautiful white spruce, (*Picea alba*), and the black, which has often a blue tint, (*P. nigra*) and its variety often called red spruce, trees of medium size and beautiful, but excelled in size and utility, whether standing or felled, by the foreign exotic Norway spruce (*P. excelsa*), which yourselves have decided, and very correctly, to be the very best of all evergreen trees for the shelter belt, on account of its hardiness, its

adaptability to all soils, its rapid growth, dense spray and foliage, and its comparative cheapness. The Norway spruce is also a very pliable tree, and bears transplanting well, and in the shelter-hedge it patiently submits to the free use of the knife in close trimming. For the shelter grove, and especially for the single or grouped trees of the lawn, nothing can excel the beautiful grace of form, nor the depth and purity of green presented by the common American hemlock-spruce (*Abies Canadensis*). This species was common in much of your early forests and must be familiar to you all. The hemlock has a northerly limit, as shown by Mr. Drummond's map, extending from the northwest and northeast coasts of Lake Superior, by the head waters of the Ottawa River, crossing the St. Lawrence below Quebec and traversing New Brunswick to the ocean in latitude 47 degrees.

The hemlock makes such a dense growth of foliage and slender twigs, that it is perhaps the very best plant for the protective shelter hedges that should be found about the dwellings and outhouses of every farm in your broad domain of Ontario.

The native balsam (*abies balsamea*), as you seem to be aware, is hardy enough and very beautiful when young, but unsatisfactory for planting because it is apt to grow shabby when older.

The red cedar (*juniperus virginiana*) has a wide range both north and south, east and west. Though less extended than the other native evergreens, this juniper is found in your part of Ontario, and would be hardy enough, which is not the case with the Irish juniper and some other garden forms.

The red cedar has been called the poor man's evergreen in our Western States, because of its abundance, its consequent cheapness, and the ease with which it may be brought into cultivation. Its growth is sufficiently rapid ; trees set out twenty feet apart have formed a close wall of sheltering green, while their tops have grown twenty feet high, with branches from the ground, and all within twenty-five years from the seed. This tree needs age to make its lumber valuable, while young there is too large a proportion of alburnum or sapwood ; when the red heart wood is developed the timber is perdurable, and highly valued for posts, sills and other uses where durability is required.

One of your most beautiful and most abundant native evergreens is yet to be mentioned, the American arbor-vitæ, (*thuya occidentalis*). This is erroneously called white cedar, which is quite a different tree (*cupressus thyoides*), also found in parts of the Province, and reported in Mr. Dawson's catalogue, on the faith of Mr. Brown, on the great lakes.

The arbor-vitæ abounds everywhere on low lands, and Mr. Drummond reports it on his map as reaching to St. James' Bay, in latitude 52 degrees north. This plant is very abundant along the line of the Grand Trunk Railway, and in favorable situations immense numbers of young plants might be obtained from the mucky lowlands ; but it may also be procured from the nurseryman of any desired size, and at low prices, in much better condition for planting out than those taken from the swamps.

The arbor-vitæ and the hemlock-spruce, though admirably adapted for the construction of wind-breaks, are also the two very best species for planting as shelter hedges upon the lawn, around the gardens and about the dwelling and outhouses, wherever it is possible to introduce these screens. You are strongly urged to set them abundantly in all such places for the comfort they will afford to your families.

Plant hemlocks and white spruces on the lawn near your houses. The shelter groves to which allusion has already been made should not be overlooked nor forgotten. These should be placed rather near to and on the windward sides of your buildings. Select the site and prepare the soil thoroughly before planting out the trees you may have selected. Set them closely to produce an immediate effect. Three rows in every four may be of inferior or cheap kinds to act as nurses to the more desirable plants that are to remain permanently. The former must be removed so soon as these last need the space for their healthy development. Of course the whole lot should be well cultivated for a few years, or until the ground is well shaded. Exclude all cattle of every class from the ground. This is absolute.

Finally, my friends, lest you become aweary with too long an article, let us draw this to a conclusion, though you may rest assured the half has not been told had the description been intended to embrace all the trees that are worthy of your care in general planting. A few only have been introduced that were supposed to be especially adapted for the object in view —that of providing shelter groves and wind breaks in the open country, to compensate in some degree for the excessive removal of the natural forests, which has already occurred in portions of your country, just as it has happened in our own State. In your northwestern provinces there are open prairies which must be planted, and doubtless will be, by hardy settlers, who will imitate the examples set them by our fellow citizens on the broad trans-Mississippi plains. But it is especially you, my good people of the Province of Ontario, and you, dwellers in this fertile, interlacustrine plateau, who are now most earnestly entreated to begin at once the work of providing the needed shelter for yourselves, your cattle and your crops, by planting homestead groves, shelter hedges, wind breaks and shelter belts. Do it, my friends, also for the sake of your friend and well-wisher from over the border.

Lively Work.

A few days ago two men in the employ of Wm. Hales, jobber for Messrs. Ullyott, Sadler & Co., Peterborough, named respectively Thos. Nesbit and Thos. McIlmoyle, cut 101 saw logs in 98 minutes, averaging 14½ inches. The logs were cut with a Lance Tooth saw, and the work was done fairly and honestly, for which the culler of the said logs can vouch.

Of hemlock bark, for tanning purposes, which is a large item in the Eastern Townships, one firm at Warden is receiving 200 cords per day, at Granby, one tanner has $30,000 worth on hand and has 3,000 more coming in. The price paid is at Dannville $4.50 per cord, and at Warwick Station $5.00.

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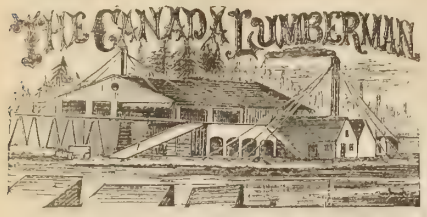

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. MARCH 15, 1882.

A GOOD cedar swamp is considered to be worth $100 per acre anywhere in Manitowoc county, Wisconsin.

THE total importation of wood into French ports during last year is valued at 178,672,430 francs, or about £7,146,897.

THERE is a fine specimen of the yew tree in Stedham Churchyard, Sussex, England, having a circumference of 30 feet at four feet from the ground.

L. J. LUCAS, of Stanton, Mich., has ordered 1,000 black walnut trees from the nursery at Ionia, which he will plant on his farm for a future supply of logs.

THE Kirby Carpenter Company at Menominee, Mich., has about 15,000,000 feet of pine that was laid low by the "gentle zephyr" of last summer at the big windfall.

WE understand that the Longford Mills Co. have sold their whole cut for the coming season at $3 a thousand beyond the highest price that they realized for any of their lumber last year.

ADVICES from our timber merchants now in Europe say that most of them have met with fair success in effecting sales, and a good number of contracts are being entered into for the coming season.

ON a recent Saturday 64 teams hauled 124 loads of lumber from Hannah, Lay & Co.'s Long Lake mills to Traverse City, Mich., a distance of seven miles, the total measurement of the lumber being 291,000 feet.

THE *Lumberman's Gazette* says that a sale of 1,000,000 feet of lumber was made in Saginaw recently at $8.50 for shipping culls, $17 for common, and $38 for uppers. This stock could have been obtained a month ago at $8 and $16.

THE *Northwestern Lumberman* says that hereafter the loggers will venerate Vennor. They read his predictions, but trembled lest he should turn out to be a monstrous liar. That alleged prophet has in part redeemed himself, and if he were now to make a trip through the logging districts the boys would take off their hats to him and cheerfully set before him all the beans and molasses he could swallow.

THE saw mill of Mr. Kelly at Somerset, P.Q., is in full operation. A large number of men are employed in the vicinity cutting ties for the Grand Trunk Railway, and Mr. Kelly is also having a quantity of cedar cut for shipment to Europe.

SIR JOHN LUBBOCK gave notice in the British House of Commons to move, on the 7th of March, for a select committee to enquire into the state of forests and woodlands, and whether any, and if so what, steps can be taken to render them more productive.

A QUEBEC correspondent says that timber freights have opened at a slight advance over last spring's quotation, but it is thought that the spring fleet will be small, owing to the detention of a large number of Quebec traders, at southern ports, awaiting cargoes.

AT Kendall, near Port Hope, Messrs. W. Jackson & Son, of the Kendall lumber, shingle and lath mills, run two shingle mills, and a lumber and lath mill. They make from three to four million of shingles, and from six to seven hundred thousands of lumber and lath.

A JOINT stock company is in course of organization in Quebec for the dressing and manufacture of lumber into wooden goods, and for trading in lumber of all descriptions. The capital is $80,000, and Messrs. A. Thompson, P. P. Hall, J. Price, G. B. Hall and J. H. Hamilton, jr., are the first directors.

THE *Northwestern Lumberman* says the following circumstance seems like a curiosity, happening in a locality as far north as Emmett county, Mich., in February. On the 16th of that month, in McMann's camp, one team hauled snow on the road, while another hauled 263 logs to Bear river, three-fourths of a mile.

A PARTY of explorers in this city are fitting out for an expedition through the Saskatchewan Valley and through the timber limits toward the Rocky Mountains during the early summer. They are engaged by a large land speculating company just organized in the city, who will expend about half a million dollars in the purchase of lands.

A STEAMER running on the Tennessee and Cumberland rivers has on board a bark crusher and compressing machine, with which it is proposed to crush and compress bark bought at the various stoppages into one-fifth its normal space, the bales, however, holding the original weight. If successful, these machines will reduce the freight on tan-bark, and render possible its exportation to Europe.

THE Secretary of the Chicago Lumbermen's Exchange reported to the annual meeting, on March 6th, that the past year has been one of the most successful ever experienced in the North-West. The receipts of lumber were nearly 2,000,000,000 feet; shingles, 866,000,000; lath, 104,000,000, while coarse forest grades by lake aggregate 2,846,000 posts, 4,200,000 ties and a large quantity of miscellaneous stuff.

OUR WOODS AND FORESTS.

Though we are glad to see that in the Ontario Legislature, as in the press, there are manifestations of a growing interest being felt in the question of the preservation of our fast vanishing forest wealth, yet it is to be regretted that no practical steps have been taken so far this session to preserve and foster it, and especially that nothing has been done towards establishing a department, or at least a separate and independent bureau of "Woods and Forests." The Government has taken no action in the matter, the Opposition does not suggest it, and even the independent members are one and all silent. It seems as if it were the general consent that as long as the revenue is swelled by contributions from our forests, nothing more need be desired, and as if the larger such contributions can be made so much the more satisfactory. Not a word of warning even is said as to the fact that most of the receipts from our woodlands are really a converting into revenue what is in fact a part of our capital, as in the case of the large payments received, or still to be received, from the recent sale of timber limits. A more complete illustration of the fabled slaughter of the goose that laid the golden eggs could not be conceived, and the consequences must be as disastrous.

The session is probably now too far advanced for any important legislative or even administrative change in this matter. It is not too late, however, to bring the subject before the House, so as to educate alike the members and their constituents with a view to more active proceedings next session. There are many lumbermen among the members who are well able to take up the matter intelligently, and there are several independent members who could handle it without being hampered by any idea of party advantage or disadvantage. Will not one of these gentlemen take up this question and cause it to be so ventilated that a more scientific and economical system may be adopted before it is too late?

BREACHES OF CONTRACT.

In another column will be found a copy of a petition which is now in course of signature for presentation to the Minister of Justice in the hope that as soon as his attention is called to the inadequate protection afforded by the law, as it now stands, to the employers of certain classes of labour, the deficiency will be supplied.

So far as the proposed amendment is concerned, its wisdom will be questioned by few, if any, of our readers, and the only wonder is that so reasonable a request has not long ago been made and engrafted in the statute relating to such contracts.

In asking for this amendment the petitioners ask for nothing more than is already the law with regard to breaches of contracts for service on the part of those employed by gas, water, and railway companies. Indeed the proposed amendment does not go as far as the law now goes in the cases mentioned, because it only asks that those who wilfully break such contracts after having obtained advances on account of services to be performed, shall be subject to the same penalties as is now imposed upon the employees named for a breach of contract without reference to whether their wages be or be not in arrear.

It is well known that nearly everyone engaged in the lumber trade has to make advances in various ways to the men taken into the woods on account of the services which they are expected to perform, and it is equally well known that as the law now stands the men to whom, or on whose behalf such advances are made, can with impunity leave the person making such advances "in the lurch," and without giving a single hour's service in return, because the only remedy provided at present for the breach of such a contract is an action for damages—a mode of procedure which would invariably only add to the loss, as no damages can be recovered in such cases. That such a state of affairs has not long ago been remedied is not only surprising but speaks volumes for the general honesty of those to whom such advances are made. There are always, however, black sheep in every flock, and it is certainly not asking too much that when such contracts are wilfully broken the reasonable penalty of a fine not exceeding $100, or imprisonment for a period not exceeding three months, shall be provided. Such a provision will be quite as much in the interest of the honest employee as the employer, inasmuch as it will enable the latter to deal more liberally with the former, by reason of its affording him a reasonable security that his advances will be repaid.

Of course it will be noted that the proposed amendment only applies to those to whom advances are made, and that it will in no way alter the law with respect to those who earn their money before they ask for it. The cases sought to be provided for are practically cases of obtaining money under false pretences, and as such should be subject to the same punishment.

No doubt when the matter is laid before the Minister of Justice he will see the reasonableness as well as justice of the request contained in the petition, and take the necessary steps for securing the desired amendment during the present session of the Dominion Parliament.

PERPETUATING FORESTS.

In the United States, as in Canada, attention is being drawn to the avisability of not opening for settlement lands which are unfit for agriculture, but rather preserving and restoring their natural forests. The Utica *Morning Herald* says:—

"The Adirondack wilderness is unconquerable—why should further effort be made to subdue it? Here is this beautiful region, located in the very heart of our civilization. Is it not here for a good purpose? And if so, should we not make the most of it? Our forests are disappearing; why not preserve the one forest which experience has proved is valuable for no purpose except as a forest? Other nations have learned the utility of forests, and spend their money lavishly in reproducing them. Why not we? As the forests disappear, the waters of these beautiful lakes shrink in volume. We need these waters, if we are to preserve our canal system. They are needed to preserve the humidity of our atmosphere which makes for our comfort and health. Already vast areas of naked rock, arid sand and gravel alone remain to receive the bounty of the clouds, unable to retain it. Why should not the state replant them? It would be more profitable than the building of gaudy new capitols, into which we pour our taxes without stint. At any rate, why should not the state at least take measures to preserve what is left of the Adirondack wilderness?"

The $100,000 Suit.

The case of McLaren vs. the Canada Central Railway Co. was advanced another stage on Thursday. The defendants moved last term to set aside the verdict for $100.000, recovered by the plaintiff at the last Toronto Assizes, and to enter judgment for them on a number of grounds. The action was to recover damages for the destruction of the plaintiff's lumber yard caused by fire issuing from the smoke-stack of one of the defendant company's engines. The court affirmed the verdict with costs, and discharged the defendants' order *nisi*.

Transplanting Evergreens.

The best season for transplanting evergreens is from April to June. Spruces are very easy to transplant, and if the roots are kept from drying and are protected from the air, and well spread and surrounded with the fresh soil, they can be moved without any loss whatever.

NOTHING ON EARTH SO GOOD.—Certainly a strong opinion, said one of our reporters, to whom the following was detailed by Mr. Henry Kaschop, with Mr. Geo. E. Miller, 418 Main Street, Worcester, Mass. "I suffered so badly with rheumatism in my leg last winter that I was unable to attend to my work, being completely helpless. I heard of St. Jacobs Oil and bought a bottle, after using which I felt greatly relieved. With the use of the second bottle I was completely cured. In my estimation there is nothing on earth so good for rheumatism."

Cacoethes Scribendi. Those troubled in this respect may find relief in using Esterbrook's Steel Pens. They are sold everywhere. Wholesale dealers, leading Toronto stationers.

A. L. UNDERWOOD

WHOLESALE DEALER IN

White Pine, Basswood & Hardwood,

82 King Street East,

TORONTO, ONT.

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NEW FOUNDRY FIRM.

McLean, Brayshaw & Co

Simcoe Street,

PETERBOROUGH.

CASTINGS of every description in Brass and Iron.

All sorts of MACHINERY for Saw and Grist Mills.

STEAM FEED for Circular Saws.

Also Saw Gummers, Cutters, Double Upset Swages, and all Saw Tools.

Send for Price List. 14

Toronto November 17th 1881

Messrs The Joseph Hall Manufg Co
Oshawa
Ont.

Gentlemen

When you were Manufacturing Engines and Mill machinery in 1872 you supplied me with all the Machinery for my Saw-Mill at Midland.

Every part of the work was strictly first class and gave me the greatest possible satisfaction. I never saw as good a lot of Machinery. The material was the very best quality and the workmanship unsurpassed. Until my Mill was burned and rebuilt I did not fully realize how entirely you carried out your agreement to do me a first class job

The Engines, Boilers, circulars, Gauges, and connections worked splendidly In the erection of the Machinery we had no trouble everything was according to the plans and specifications furnished and was put together without alteration of any kind

I am pleased to learn that you have repurchased the patterns and plant you sold to the McGill Manufg Coy and intend to manufacture all kinds of Mill Machinery You shall have all the work I can send you

Yours very truly
W H Cook

President of the British Canadian Lumbering and Timber Co.

ONTARIO WOODS AND FORESTS.

The annual report of the Commissioner of Crown Lands for the Province of Ontario for 1881 says :—

The improvement in the sawn lumber and hewn timber trade, noted in my Report of 1880, continued throughout 1881, and my prediction of the previous year, "that for some years to come transactions would be remunerative to all concerned," seems to be in process of fulfilment.

Both sawn lumber and hewn timber have found ready markets and good prices, the former realizing higher value than for years past.

Of square and waney timber, it is reported that during the past shipping season prices have ruled higher than they have ever done before for pine of good quality and average ; and it is stated that the stock on hand at Quebec is light, and scarcely sufficient for spring requirements.

As expressed in my report for 1879, my opinion, from an economic point of view, is not in favour of the manufacture of square pine ; nevertheless, while the business continues to be carried on, it is gratifying to find that a good return is obtained for the article.

The output of some of the saw mills fell short in 1881 of the quantity estimated by the proprietors as the probable cut of the season. This is attributed to scarcity of water in the streams, owing to which considerable quantities of logs failed to reach the point of manufacture. In several instances operators in square and waney timber have been subjected to the same drawback.

In the interest of the public revenue, as well of the settlers who had taken up lands in some unlicensed townships south of French River and Lake Nipissing, it became necessary to deal with the pine in the territory before it became jeopardized by fires raised in clearing the lands, or damaged and wasted by locatees cutting it indiscriminately for their own purposes, in doing which, timber of the finest quality is cut down and applied to uses for which inferior lumber would be suitable, the result being a depreciation of the value of the timber limits before they are brought into market, and in consequence a loss to the revenue. Accordingly, an inspection of the timber in the townships referred to was made in the fall, and on the 6th of October notice was published that a sale of timber limits in the territory would take place at the Department of Crown Lands on the 6th of the current month.

The time selected for the sale was extremely opportune ; parties engaged in lumbering had just closed a successful season's business, and having the means were prepared to invest in limits. The attendance was large and the bidding spirited, the prices obtained being beyond precedent, some 1,379 square miles realizing a total of $733,675.25, of which has been paid up to date $321,354.66, making the total collection on account of Woods and Forests for the year, $839,716.86.

The following is the statement made by Mr. T. H. Johnson, Assistant Commissioner, of Revenue collected during the year ending 31st December, 1881 :—

Amount of Ottawa collections, A. J. Russell	$204,652.34	
Amount of Ottawa collections, McL. Stewart	65,338.63	$269,990.97
Amount of Belleville collections, J. F. Way	85,407.67	
Amount of Belleville collections, McL. Stewart	3,017.11	88,424.78
Amount of Western Timber District collections at Department	150,330.28	
Amount of Western Timber District collection, McL. Stewart	9,616.17	159,946.45
		518,362.20
Amount paid in on account of Timber Limits sold 6th Dec., 1881		321,354.66
		839,716.86

A USE FOR SAWDUST.

The enterprising firm of Leathern & Smith are continually making new improvements and putting new ideas into operation. They are now making the necessary arrangements for using sawdust as fuel on the steambarge Thos. H. Smith next season. Piles are being driven that project just above the wharf alongside of which the barge lies while in port. Upon these piles a substantial frame-work will be constructed to the height of about twelve feet. On top of this will be placed a hopper, which will have a capacity for about fifty- five cords of sawdust. The hopper is filled by means of an elevator which is connected with the large circular saw in the mill close by. A wire sieve will be so arranged as to sort out all the bark and other rough material, which will be carried into the furnace by another elevator. From the hopper a spout will slant down to the scuttle in the hurricane deck of the barge, and thence through the scuttle in the lower deck to the hold beneath. The space on both sides of the engine room will also be filled, only enough space being left on one side to allow a passage into the engine room. The barge has been supplied with an extra large boiler to enable her to use this kind of fuel. The hopper will be filled while the boat is outside, so that no time will be lost when she comes into port and is ready to wood up. This new arrangement will not only save the owners of the boat about $40 per day in fuel, but will save the expense of burning the material in the furnace, where the intense heat caused by it is continually burning the grates and cracking the kiln. In case freights are high next season the barge will only use sawdust on her way to Chicago, where she will take on coal dust and mix it with the former material to run the boat on her return trip. Other barge lines will undoubtedly take a valuable hint from the foregoing.—*Dorr Co. Advocate.*

PROBABLE TIMBER FREIGHTS.

The vessel men continue to be agitated about the private circular sent out by one Mr. Norton, of Detroit, notifying the timber merchants not to hurry about chartering the vessels at high rates, that the latter are as thick as bees, and that by and by through him freights can be more reasonably arranged.

Said a captain to us this morning, "Vessels are not in the first place as thick as bees, and they will not be so easily obtained as Mr. Norton has intimated. Last year we only obtained fair rates, and this year we only expect the same. The Detroit man is deceiving himself and other people."

"Is there as much timber to carry this year as last ?"

"I think there's more of it. There is perhaps 6,000,000 of pine ready for shipment. There would have been considerable oak had the weather been favorable to the getting of it out."

"How much of the total cut will go down the St. Lawrence ?"

"The greater part of it. A quantity may go via Tonawanda and Erie Canal to New York. I know there's plenty of it on Lake Superior, Lake Michigan, Georgian Bay and Lake Huron. Norton I used to like. As a marine broker he was well patronized ; but in his attempt to monopolize the trade he has evidently calculated without his host."—*Kingston Whig.*

RECKLESS DEFORESTATION.

Colonel Playfair, in his "Travels in the Footsteps of Bruce in Algeria and Tunis," gives the following description of the disastrous effects of reckless deforestation in the North African coast, about Susa. It is another much needed lesson for Canada :—

"We know (he says) that at one time the country was covered with forests. I myself have travelled for days over plains where not a tree exists, and yet where ruins of Roman oil-mills were frequently met with. Ibn Khaldoun, in his history of the Berbers, says, 'El Kahina caused all the villages and farms throughout the country to be destroyed, so that the vast region between Tripoli and Tangiers, which had the appearance of an immense thicket, under the shade of which rose a multitude of villages touching each other, now offerered no other aspect than than that of ruins.' Even in modern days the same destruction of forests has been continued, if not wantonly or for purposes of defence, as in the time of the early Arab conquerers, still as surely by the carelessness of their descendants, who never hesitate to set fire to a wood to improve the pasturage, or to cut down a tree when timber is required, but who never dream of planting another, or even of protecting those which spring up spontaneously from being destroyed by their flocks and herds.

In Bruce's notes, writtten 110 years ago, frequent allusion is made to foreste through which he passed, where not a tree is now to be seen, and this is a work of destruction which must go on with ever-accelerating rapidity year after year."

SPECULATION IN TIMBER LANDS.

Says the Chicago *Tribune* :—Another indication tending to show that the lumber of the future is certain to cost the consumer more money than it can be bought for at present, is given by a recent purchase of pine land in the Menominee region, where a large tract, five miles from any stream, has been sold within a short time at $3.00 per 1,000 feet. This land would not have realized 50c. per 1,000 feet two years ago. Speculative purchase of pine tracts at points from which Chicago and the customers of Chicago dealers must secure their supply for the next ten years is becoming quite a frequent practice nowadays among capitalists, who think they foresee a very healthy plum in such ventures. It has already been related that a prominent citizen of Chicago received as his fee in a noted divorce case many years ago a tract of pine land in Michigan, then valued at $8,000. This land has, it is said, recently sold at the snug sum of $420,000, or $5 per 1,000 feet for the stumpage.

THE SURVEY AND EXPORTATION OF LUMBER.

Mr. Colter's bill now before the House of Assembly should be most carefully examined and fully discussed before final action is taken, in order that the country may have opportunity to judge of its merits. For the information of our readers, we give the text of the bill in full :—

An Act to amend the Act intituled an Act of the Survey and Exportation of Lumber.

Be it enacted by the Lieut.-Governor, Legislative Council and Assembly as follows :—

That section six of the above recited act be and the same is repealed and in lieu thereof—That in the survey of pine and spruce logs the following regulations shall be observed by the Surveyors : Logs for the manufacture of deals shall not be less than twelve feet in length and six inches in diameter ; shall have an allowance of from four to six inches in the length to permit the deals when sawed to be trimmed—shall be sound, free from bad shakes, auger or plug holes, crooked gum seams, ring or bowel shakes, rot, bad knots, and worm holes. All logs of twenty-six feet long and up shall be measured in two lengths and adequate allowance shall be made by the Surveyor on all crooked logs. The diameter at the small end, exclusive of bark, shall be taken as the diameter for ascertaining the contents, and the surveyor shall mark or scribe on every log surveyed by him the superficial contents thereof, with his private mark and the initials of the names of the purchaser.

The table of contents is changed to correspond to the requirements of the above section—the change only, however, affecting logs up to 10 inches in diameter, above that the old scale table is still preserved.

It is provided that this act shall not affect existing contracts, or anything begun under section six of the old act.—*St. John, N.B., Sun.*

SHREWDNESS AND ABILITY.—Hop Bitters so freely advertised in all the papers, secular and religious, are having a large sale, and are supplanting all other medicines. There is no denying the virtues of the Hop plant, and the proprietors of these Bitters have shown great shrewdness and ability in compounding a Bitters, whose virtues are so palpable to every one's observation. —*Examiner and Chronicle.*

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly to it wonderful effects.

Chips.

MESSRS. MCCRAE & Co., of London, purpose erecting a saw mill at Ettrick station, London township, for the purpose of cutting 6-inch maple deals for the European market.

FROM the Postmaster General's Report, just published, it appears that the Allan Line of Steamships conveyed from Quebec to Liverpool, between the 21st of April and 30th of November, 1881, deals and staves to the number of 125,643 pieces.

IT is reported at Quebec that Messrs. R. R. Dobell & Co. have received the Grand Trunk Railway contract for the supply of timber. The same firm have secured the contract for supplying the Imperial Government with what timber they may require for the ensuing year.

THE Muskegon *News and Reporter* says Thos. D. Stinson, one of the wealthiest, most liberal and enterprising lumbermen in the Muskegon valley, has resolved to take down his $40,000 residence at Big Rapids and move it to Muskegon at a cost of upwards of $10,000. The residence, when put up in this city, will be one of the finest in the state and worth fully $60,000.

THE *Citizen*, of Ilion, Herkimer county, N.Y., says that "some wealthy Boston tanners have purchased the hemlock bark on 28,000 acres of timber land in the Adirondack region, and purpose soon to strip the trees. We thought the legislature had contracted to preserve the great northern wilderness for the purpose of promoting the rainfall of the State, and of supplying the Erie canal and Hudson river with water enough to float boats.

THE *Northwestern Lumberman* says that Kelly, Rathborne & Co., of Chicago, will bring a suit against T. W. Kirby and H. C. Akeley, of Grand Haven, owners of the tug *J. W. Johnston*, for damages by the fire on Sisson & Lilley's dock in November last. The Chicago firm, whose lumber was consumed, claims that sparks from the tug caused the fire, and will try to prove it. There is money on both sides, and the fight promises to be a lively one.

ONE of Cheboygan's leading lumbermen predicts that the cedar of this section will prove to be more valuable than the pine has been. All the flats along the streams for miles back, in some cases, is covered with a thick growth of cedar. The streams have all been cleaned out so that the cedar crop can be run down without difficulty, and being so conveniently situated on the banks of the several streams, it can be cut and put in the water at a very reasonable figure.

THE speech of the Governor of Michigan at the opening of the special session of the Legislature gives some details of the destruction wrought by the bush fires of last September, which present a very fair idea of the extent of that calamity. He says that the fire swept over a district of some eighteen hundred square miles, causing private losses, so far as known, of an aggregate of over two million dollars, and reducing nearly fifteen thousand persons to a state of dependence upon the public aid for their daily bread. In addition to this nearly three hundred lives were lost, and an immense quantity of public property was destroyed.

THE bill for the incorporation of the Quebec Timber Co. states that the objects of the Company are the acquisition of the pine and other timber limits situated in the Province of Quebec, in the Dominion of Canada, with the saw mills, dwelling houses, workshops, outbuildings, lands, standing timber and other property of H. Atkinson, Esq., of Etchemin, Que. ; the acquisition by purchase or otherwise, of timber limits and pine lands in the Dominion of Canada and the United States of America, or elsewhere, other than those above referred to ; the conducting of the business or lumberers and timber merchants throughout the Dominion of Canada and elsewhere, including the preparation, manufacture, transport and sale of timber and lumber, and the erection and purchase of mills, saw mills, buildings, machinery, coves, booming grounds, utensils, vessels, the making and working of roads, railroads, tramways and channels of water, and the purchase of additional land, and the doing of everything necessary for conducting the business of the company.

MAGIC'S WONDERS.

"While in London, England, a short time ago," said the professor, "our Oxford-street waiter was made the victim of a practical joke. One morning, as this tonsorial artist sat reading his newspaper, he was startled by seeing a young man enter in a very excited manner, who throwing, rather than seating, himself in the chair, demanded a shave instanter. The barber, who was a ready fellow, at once set about obeying the commands of this excited and hurried guest. With a rapidity that surprised himself, he shaved the right side of his customer's face, and then immediately turned to the left. That side he also shaved with cleanliness and despatch, but, judge of his surprise, when his customer demanded to know in tones anything but pleased why he did not shave the right side. The poor bewildered barber was almost certain that he had done so, but perceived to his surprise that the side in question was covered with jet-black hair. Again he shaved it, but while he did so, to his surprise and horror, the hair was growing on the other side. Thus it continued for an hour. While he shaved one side, he could actually see the hair growing on the other side. Terrified beyond expression, he stood motionless; hereupon the young man leaped from the chair, and, snatching the razor, drew it across his throat, and fell to the floor covered with blood. The barber flew into the street hallooing "Murder!" at the top of his voice. A crowd soon gathered, and, with the affrighted barber, beheld the supposed corpse quietly arranging his tie before the mirror—turning very pleasantly, he paid the barber and departed. A theatrical gentleman among the lookers on soon gave it out that it was Professor Hermann, the Great American magician. I went to my hotel and awoke next day to find myself the talk of London," concluded the Professor, "for it was I who did it. I gave the poor barber fits. Did you ever hear how I gave a friend of mine the snakes?" asked the Professor. On receiving an answer in the negative, he said, "A friend of mine, who was as great a drunkard as an actor, and that is saying a great deal, was one morning seen by me entering a drinking-saloon when he was almost on the verge of delirium tremens, and knowing his horror of 'snakes,' as *mania-a-potu* is vulgarly called, I resolved to save him. I entered just as he raised a glass of whiskey to his lips, and rushing forward I snatched the glass from his hand, crying at the same time, 'Hold S., until I take this fly out.' Pretending to take the fly out, I held up a serpent. S. cried out, 'My God! that is a snake!' 'Not at all,' said I, 'It is a simple house-fly. See? you are covered with them,' saying which I approached, and from his sleeves, hair, etc., I proceeded to pull snakes, protesting all the time that they were flies. 'They are snakes!' cried S. again. 'My God! that is a snake; I tell you, Hermann, they are snakes!' 'Nonsense,' said I, 'they are but flies.' 'Then,' said he, 'I have snakes myself!' and he rushed from the saloon. He was not seen for more than a week after; but when next seen he was sober, and has been so since." "Professor," asked the interviewer, "were you, who are so fond of surprising others, ever surprised yourself?" "Once," was the answer, "then the surprise was a very great and agreeable one, I assure you. It came about in this way, I was for a number of years a sufferer from cramps in my left side, immediately under the heart. I suffered regularly at the close of each performance, and very often was compelled to cancel engagements which I had made, owing to my inability to fill them, being prostrated by cramps, and being in a weak condition. I entertained very serious thoughts of giving up my profession and spending some years in travel, and would have done so but for an attendant of mine, whose head I had cut off occasionally while performing my wonderful decapitation act. The individual to whom I complained of the pains and the cramps in my side on one occasion said it was curious—that I, who could decapitate another and replace the head at will, ought certainly to be able to cure myself. I told him how some of the best doctors in Europe and America had failed. He laughed at me, and said he could cure me in a week. That night he presented me with a bottle of St. Jacobs Oil, the Great German Remedy, saying that its use would produce an effect more magical than I could readily believe. I laughed at the idea of St. Jacobs Oil doing what had baffled the greatest doctors, but said that I would try it, simply to convince him that trying it would do no good. That night, on retiring, I rubbed my side with the Oil, and, sure enough, its good effect was instantaneous—magical, in fact; I felt relief at once. I slept better that night than I had done for a long time before. Again in the morning I rubbed with the Oil, and at the close of the afternoon performance I noticed a great diminution of the painful cramps. Was I surprised? Well, I was very much surprised, and I told my attendant so. In less than a week, and before I had finished using my third bottle, I was entirely and permanently cured. The effect of St. Jacobs Oil was indeed magical, so much so that I could scarce believe my senses. I have never felt a cramp since—nor is there prophet, seer, soothsayer or magician who can perform such wonders as St. Jacobs Oil."—*Cincinnati Enquirer.*

THE LUMBER OUTLOOK.

The *Lumberman's Gazette*, of Bay City, Mich., says:—There is no mistaking the tendency of the lumber market. The quotations from every direction show an upward tendency, and in some quarters on particular stocks, the advance is very marked. This may be, in a measure, the result of a scarcity of the particular class of lumber on which the advance is so noticeable, but a very material advance on all grades has resulted in almost every direction. That there can be no reaction during the coming season a careful consideration of the causes which have resulted in the rise must convince the most skeptical about the stability of the present lumber business boom. The unexampled building activity of last year reduced the stocks in the yards of dealers in every direction. The increased demand thus engendered, also reduced enormously the unsold lumber in the great manufacturing centres at the close of the season. The greatly increased expense of securing the log crop for next season with which to replace the depleted stock and supply the inevitable demand, must act as an effectual bar against any reduction in price from the figures already attained; and the great probabilities are that a still further advance will result before the new log crop reaches the market in a manufactured state.

I. J. Lucas, near Stanton, Mich., proposes to plant 1,000 black walnut trees on his farm, for the purpose of experimenting as to the feasibility of growing such timber for furniture wood purposes. He will set the trees 20 feet apart, covering ten acres with the plant.

Maine News.—Hop Bitters, which are advertised in our columns, are a sure cure for ague, biliousness and kidney complaints. Those who use them say they cannot be too highly recommended. Those afflicted should give them a fair trial, and will become thereby enthusiastic in the praise of their curative qualities. *Portland Argus.*

Teaberry whitens the teeth like chastened pearls. A five cent sample settles it.

Burns and Scalds are promptly cured as all flesh wounds, sprains, bruises, callous lumps, soreness, pain, inflamation and all painful diseases; by the great Rheumatic Remedy, Hagyard's Yellow Oil. For external and internal use. Price 25c.

A Cure for Headache.—What physician has ever discovered a cure for headache? Echo answers none. But Burdock Blood Bitters by their purifying, invigorating, nervine properties afford a cure in nearly every case. The health-giving principles of this remedy are unequalled by any similar preparation in the world.

The Secret of Beauty.—No Cosmetic in the world can impart beauty to a face that is disfigured by unsightly blotches arising from impure blood. Burdock Blood Bitters is the grand purifying medicine for all humors of the blood. It makes good blood and imparts the bloom of health to the most sallow complexion.

Is it a Humbug? Some people think all proprietary medicines humbugs. In this they must be mistaken. A cough medicine like N. H. Downs' Elixir that has stood the racket of 52 years must have some virtue, and must cure the diseases for which it is recommended, or people would not continue to buy and use it as they do. It seems to us that even if we knew nothing of its merits, the fact of its large and continually increasing sale justifies us in recommending Down's Elixir to all who may need a reliable cough medicine.

P. PAYETT'S NEW IMPROVED
Adjustable Saw Guide!
Can be adjusted without danger. You can take your saw off without taking the guide off the frame.
All kinds of Brass & Iron Casting
PLAINING and TURNING done with Despatch. For particulars address:
CRAIG & CAMERON,
PENETANGUISHENE. 1L12

P. JEWELL & SONS
(Hartford, Con.) Established 1849.
Purely Oak Tanned Leather Belting.
And LACE LEATHER
FOR SALE BY
GEORGE STETHEM,
PETERBOROUGH, Ont. L5

J. L. Goodhue & Son
MANUFACTURERS OF
Leather Belting!
—AND—
Patent Lace Leather.
2L24 DANVILLE, P. Q.

WISDOM & FISH
IMPORTERS AND DEALERS IN
Rubber and Leather Belting
RUBBER HOSE, STEAM PACKING,
LUBRICATING OILS, COTTON WASTE
Wrought Iron Pipe and Fittings,
And all Articles used in the Application of Steam to Machinery.
No. 41 Dock Street, St. John, N. B.
(SMALL'S BLOCK.)
N.B.—Estimates for Steam and Hot Water Heating Apparatus furnished on application. All work Warranted. 1L15

GRATEFUL—COMFORTING.
EPPS'S COCOA
BREAKFAST.
"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*
Made simply with boiling water or milk. Sold in packets and tins only (½-lb. and lb.) labelled
JAMES EPPS & CO., Homœopathic Chemists,
London England. 1L14

PORTLAND FOUNDRY.
JOSEPH McAFEE,
(Late Angus McAfee.)
Warehouse, Main St., St. John, N.B.
AGRICULTURAL IMPLEMENTS.
MANUFACTURER OF
Cooking, Ship, Parlor & Office Stoves
MILL CASTINGS
Ship Windlasses, Capstans, and Ship Castings of all kinds,
(MADE TO ORDER.)
Power Capstans, Patent Ship Pumps
With Copper Chambers. 1L15
Lead Scuppers & Water Closets & all goods in my line for Ships' use.
Work done to Order with Quick Despatch.

IRWIN & BOYD
Commission Lumber Dealers,
FORWARDERS,
Shipping & General Agents
PORT HOPE.
1Ltf

UNION FOUNDRY
Union Street, - - - Carleton,
Warerooms, Water Street,
ST. JOHN, N. B.
Allan Brothers
(Late of Harris & Allen)
MANUFACTURERS OF ALL KINDS OF
Steam Engines
AND
MILL MACHINERY.
Ships Windlasses, Iron Capstans
and Ships CASTINGS of all kinds.
Ships Cambooses & Cabin Stoves
COOKING AND HEATING
STOVES,
Shop, Office and Parlor Stoves, and Franklins.
Agricultural Implements.
BRASS CASTINGS.
Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.
1L18

Market Reports.

TORONTO.

From our own Correspondent.

MARCH 8th.—Prices remain the same at all the yards as when I last wrote you, but this cannot last long in view of the fact that manufacturers on the line of the N. & N. W. Railways have determined to charge $10 per M. on cars at the mills, for all bill stuff up to 16 ft. in length, that figure means $12.50 per M. on car here, and say 50 cents for teaming to the yards, and allow nothing for piling, brings it up to the figures now being sold for at the yards. The danger now to be apprehended is that building operations may be largely curtailed during the coming summer if prices go up much above present figures. Lath still continues to tend upward, and but for the stocks held by the master masons previous to the present dearth, work would be nearly at a stand still.

The N. & N. W. R. Company have somewhat relaxed their stringent rules in regard to the weighing of lumber, so little lumber having been brought over the roads since I last wrote you that doubtless a weight settled upon the minds of the different heads of the freight department quite as heavy as that of green lumber. The G. T. R. Co. still persist in collecting for all overweight, thereby nearly doubling their freight earnings on lumber cars, as it is well understood that the N. R. Co. receives no benefit for the charges levied for excess weight.

I will now continue to notice, for the information of your readers, the other woodworking factories in this city, prominent among which is the shop owned by Mr. George Gall, situated at the head of John street, and whose pay roll frequently foots up to $2,000 per week. Mr. Gall does a large building trade, and his reputation for good work stands exceedingly high, and the stock of lumber held by him is larger than that held by many of the retail yards. His shop is filled with labor saving machinery and a large staff of experienced workmen. Mr. Gall has also worked up considerable of a trade with firms in Scotland, and ships large quantities of prepared lumber annually, to be further manipulated upon its arrival there.

Messrs. Withrow & Hillock's factory, situated on the corner of Queen and George streets, is also well worthy of notice. This firm has acquired a wide-spread reputation as manufacturers of the celebrated Arctic Refrigerators, large numbers of which are sent to all parts of the Provinces, and may be obtained from them, got up in any style desired, from plain pine to highly polished walnut; they also manufacture all kinds of mouldings, doors, sash, and in fact everything required by builders in the house-fitting line.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$ 9 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	13 00
" " " 18 ft	14 00
" " " 20 ft	14 50
" " " 22 ft	15 00
" " " 24 ft	15 50
" " " 26 ft	16 00
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	27 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	20 00
" boards "	16 00
Sound dressing stocks	16 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	15 00
1½ " " dressed	25 00
1½ " " undressed	15 00
1 " " dressed	20 00
1 " " undressed	15 00
⅞ Beaded Sheeting, dressed	20 00
Clapboarding, dressed	12 50
XXX sawn shingles, ℔ M	2 50@3 00
XX sawn shingles	2 75
Sawn Lath	2 50

MONTREAL.

From Our Own Correspondent.

MARCH 9th.—The weather for some time past has not been very seasonable for operations at the shanties, and we observe that shanty teams are daily arriving in Ottawa, showing that work on the Upper Ottawa is nearly at a close for this season, while the cut this season will fall short of what was expected. It is rather early yet to say what the prospects are for shipment of lumber from this port, but the general feeling is that it will be fully equal to last year, and will possibly exceed it if there is plenty of water in the Ottawa to bring down the lumber in the fall. In our local market there is not much doing just now, being rather early yet for the spring building demand. Stocks are getting low and our quotations, although unchanged, are firm, and likely to remain so. We continue to quote :—

Pine, 1st quality, ℔ M	$35 00@40 00
Pine, 2nd " ℔ M	18 00@24 00
Pine, shipping culls, ℔ M	14 00@15 00
Pine, cull deals, ℔ M	8 00@12 00
Pine, mill culls, ℔ M	5 00@ 8 00
Spruce, ℔ M	8 00@10 00
Hemlock, ℔ M	8 00@10 00
Ash, run of long culls out, ℔ M	16 00@18 00
Bass, " " ℔ M	16 00@17 00
Oak, ℔ M	35 00@45 00
Birch, ℔ M	17 00@20 00
Hard Maple, ℔ M	18 00@25 00
Lath, ℔ M	1 50@ 0 00
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 00@ 0 00

CORDWOOD.—Owing to bad roads and unreasonable weather, there has not been so much wood got out in the upper districts, but in the low districts there has been a fair output. The stocks in the yards are beginning to get worked down, and there has been a fair wholesale demand at fair prices, which are likely to be maintained. We quote prices at the railway depot, ex cartage :—

Long Maple	$6 00
Short "	5 50
Long Birch	5 50
Short "	5 00
Long Beech	5 00
Short "	4 50
Long Tamarack	4 50
Short "	4 00

OTTAWA.

From Our Own Correspondent.

MARCH 7th.—The season just coming to a close, as directly concerns the lumbering interests of the Upper Ottawa, has been a somewhat remarkable one ; and were it not that last summer's operations resulted in comparative success, and rates at present are on the increase, with pretty good prospects of a more prosperous trade the approaching year, the present season would be seriously felt among the establishments here carrying big stocks. Great anticipations were formed in the early part of the season, but unfortunately

A VARIETY OF CAUSES

have arisen which prevented the realization of them. A late commencement was made consequent upon the open season, and little or nothing was done in the shanties up to Christmas, after which a favorable spell set in and considerable work was rushed, but intervals of thaw have occurred up to the present, and will in all likelihood continue. A considerable amount of trouble was experienced right along throughout the winter in securing shanty hands, and to cap the climax that comparatively new horse disease,

PINKEYE,

made its appearance and played havoc with the animals in all directions, some concerns being compelled to close up. All these things taken into consideration, it is estimated that the cut of square timber will be some 15,000,000 feet short of what was anticipated. However, if what has been taken out in the limits, and also the logs stuck in the streams since last season, be safely conveyed to the mills, an average season's work will be the result. On the south shore of the Ottawa operations have been almost completed for the year. Nearly all the teams and a good many men have been discharged. Perhaps the

MOST FORTUNATE OPERATORS

are those having limits on the Kippewa river. They did not experience quite as much difficulty as others in having supplies brought in during the winter, and consequently had a pretty fair season. There are forty shanties on this river. Messrs. Booth & Gordon have two; Sherman, Lord & Hurdman, three ; O. Latour, three ; Edwards & Co., two ; Patley & Perley, two ; Grier, one ; David Moore, two ; A. Grant, twenty, or thereabouts. About one-half of these are turning out timber and the other half logs. A few

SALES OF TIMBER

and cuts have already been made within the past few weeks. Geo. Taggart has sold his cut of timber on the Temiscamingue to Quebec merchants. The price received has not transpired. Andrew and P. White have disposed of their cut on the Magnacippi. Messrs. R. R. Dobell & Co. have purchased from Messrs. Conroy & McLean all their make of waney and square pine timber manufactured this season, about 800,000 feet.

CHIPS.

Mr. R. Nagle has just returned to the city, having closed his shanty on the French river last week for want of snow.

In Conroy's shanties on the Madawaska and at Fort Eddy over one hundred horses succumbed recently to the ravages of pinkeye.

The famous case of McLaren v. Caldwell, which has been before the Supreme Court here for some days, has been concluded. Judgment reserved. Costs in this case are enormous, amounting already to $40,000. 126 witnesses in all were examined.

LONDON, ONT.

From Our Own Correspondent.

FEB. 25.—The most difficult part of a correspondent's duty is to obtain without prejudice a faithful and true account of what he is recording ; and it is becoming a popular belief that that individual, were he put to the test, could report verbatim, or nearly so, the proceedings of any Municipal Council meeting taking place in any city in Canada, were he on the Peak of Teneriffe. He knows there is the indispensible chronic grumbler, the philanthropic retired tinsmith, the sanitary alderman, who is a merchant butcher, and whose slaughter-house for years previous to his gaining municipal favor was a terror to the neighbourhood ; the little man who is the people's choice for No. — Ward, and who never can exclude the shop from his remarks at the Council Board ; then there is the high-toned "linen draper," (see Walker) who is chairman of several committees, and tries to look more fierce and rampant than the gilded lion over his store ; then comes the Mayor himself, who has asked permission to retire, and offered heavy premiums for somebody to take his place.

All this is a hollow mockery ; the correspondent, or "daily" reporter, knows it ; he knows, too, that municipal humanity is the same all the continent over, hence he finds his duties easy to perform, and a Municipal Council meeting fun to him.

Why I commenced my letter in the strain, I will tell you. I have a duty to *you* to perform which requires considerably more application, and my letters of necessity cannot in the face of fluctuating markets be of a stereotyped form, and I have to exercise great precaution in obtaining authentic and reliable reports, so that I cannot send you letters on supposition, but must write the result of may visits to parties interested, and the report I shall give you in this letter is possibly a little more favorable regarding prices than my last. There is a greater firmness shown by our lumber merchants. Nearly all our bases of supply on the L. H. B. & W. G. & B. Railway have had a very poor season for getting out lumber, and stock consequently is very light, so that the inevitable result must be high prices this coming summer. There is no easing off in figures, if anything there is a strengthening tendency, and prices may be quoted very firm at my last quotations.

LATER.

MARCH 9th.—It has been my intention to furnish you with reliable statistics of the last year's lumber business of this city, and I would have done so sooner but for the impossibility of obtaining the necessary information from the legitimate dealers and merchants, they not having figured up their stock taking results. I think I can promise you that my next letter will contain an authentic statement, as I have up to now got the figures of two of the principal merchants, and will have those of the remainder for my next.

While we have had but three days' sleighing in this city during the whole of the winter, in Wingham, about 70 miles north, they have had about six weeks, so that there is hope that the getting out of lumber at the places of supply will not be so bad as our winter here would indicate.

No great amount of building is going on in the city, though a new large wholesale block is now in course of erection on a part of the site of the old Opera House. I say a part of the site to signify that but tor the obstinacy or greed of two of the store tenants, who refuse to move under the compensation price of a farm, the whole building would have been torn down and a greater area of new building would have been going on. Of course in the suburbs of the city there is always more or less of new dwellings going up. Our new Masonic Temple was dedicated on Tuesday last, and great crowds of the craft were here from all parts of the country.

The lumber market remains very firm, and prices are about the same as my last with perhaps a hardening tendency, and the opinion prevails that before many weeks there will be a jump. In the meantime you will be safe in quoting my last figures.

QUOTATIONS.

Mill cull boards and scantling	$11 00
Shipping cull boards, promiscuous widths	12 00
" " 10 and 12 in. stocks	12 50
Common boards, promiscuous widths	14 00
Scantling and joist, up to 16 ft	15 00
" " " 18 ft	15 50
" " " 20 ft	16 50
" " " 22 ft	17 50
" " " 24 ft	19 00
Common stocks	15 00
Common 2 in. plank	14 00
Cutting up plank and boards	19 00
Sound dressing stocks	18 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	21 00
¾ " " " "	21 00
1 " " " "	21 00
XXX sawn shingles, ℔ M	3 00
Lath per 1000 feet	4 50@5 00

ST. JOHN, N. B.

From Our Own Correspondent.

MARCH 6.—During a large part of the period since the date of my last report the conditions in the woods for carrying on logging operations were all that could be desired ; latterly, however, we have had a very heavy thaw, which, within its range, must have seriously interfered with the work. Possibly the thaw was less severe in the interior (from which no definite information on the subject is to hand), if so, it might not have much influence in impeding operations. For the remainder of the season much will depend on the weather ; should this month turn cold and frosty, a large amount of work can still be accomplished, while on the other hand, if the weather continues mild, the hauling will soon be broken up ; under any circumstances the log crop will be much below the average quantity.

FREIGHTS.

Our fleet of vessels in port has been considerably increased, and as the demand for tonnage is very light, freights have declined. Several charters have been effected at 62s. 6d. for an extensive range of ports, but later 61s. 3d. was accepted ; we quote 60s. as about the rate at present.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	1,378,000 Sup. feet.
" United States	992,000 "
" South America	456,000 "

No shipments of sugar box shooks for Cuba this term.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Fidelia, 450, Cuba.
Alfarin, 446, Bristol Channel.
Richard Hutchinson, 758, Penarth Roads, or E. C. Ireland.
Maria Aistrup, 339, Bristol Channel, or E. C. I.
Cynthia, 886, West Coast England, or E. C. I.
Oliver Emery, 623, Bristol Channel, or E. C. I.
Hyperion, 306, Cuba.
John Black, 545, ——
Kate Sancton, 677, ——
Herbert Beech, 1,061, discharging.
Hawthorn, 620, Bristol Channel, or E. C. I.
L. H. DeVeber, 599, W. C. England, Clyde, or London.

CHICAGO.

The *Northwestern Lumberman* says that the month of February was one of the most remarkable periods in the history of the Chicago lumber trade by reason of the amount of stock that was sold. Trade throughout the month was unprecedentedly heavy for the season, and towards the close doubled in some yards, and in others quadrupled.

At two yards it was stated to a representative of the *Lumberman* that during the last week of the month four times the amount was sold of any previous week of the month, and at one yard the sales of the last week were more than for all the other portion of the month. Judging from the reports of other yards, several could present as good a showing ; and February throughout was a remarkably good month for

trade. At one office the statement is made that orders are accumulating on the books so rapidly that the lumber already called for to be delivered in March is equal in amount to that sold in February, which also, with this company, was a favorable month throughout. The rapid increase of trade indicated by these late features promises well for the early spring business. The fact is recognized that all winter the movement of lumber has been large, and the stuff has gone to supply an immediate demand.

Receipts and shipments of lumber and shingles for the week ending March 2, 1882 :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882.....	5,003,000	1,475,000	42,492,000	9,830,000
1881.....	4,012,000	1,952,000	16,911,000	9,270,000

Receipts and shipments of lumber and shingles from January 1, to March 2, inclusive :

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882...	42,843,000	11,503,000	236,588,000	65,885,000
1881...	35,876,000	12,378,000	127,599,000	63,642,000
Inc..	6,967,000		108,989,000	2,243,000
Dec..		875,000		

STOCK ON HAND FEBRUARY 1.

	1882.	1881.	1880.
Lumber.....	471,350,108	444,022,272	403,981,900
Shingles.....	200,800,347	186,790,000	171,495,000
Lath	46,691,923	47,282,560	44,710,165
Pickets.....	3,082,823	2,426,482	2,041,351
Cedar posts.....	183,469	90,700	326,731

BOSTON.

MARCH 4.—The *Journal of Commerce* says :—The market for the present may be rated as good. A great many stories are being circulated, which, in many cases, would convey the idea that the outlook had been considerably overrated. However, in view of actual reports from the producing districts and the general indications of activity in the way of building in the spring, it does not seem to be a mistake in judgment to say that the spring trade promises to be at least as large as for many years. At any rate, that seems to be the general impression among dealers in this vicinity. The stocks on hand in many of the yards are far from what they ought to be, both in arrangement and amount. At most of the great western centres there has been sufficient snow to permit of better logging than had been experienced in the early part of the winter. At some points orders are being placed without difficulty at an advance of $2 on culls and $3.50@$4 on first quality over last spring's prices. It is difficult to ship lumber from many points in the south and west owing to the lack of freight facilities. Hardwoods are firm, with good sales reported, and at very stiff prices.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

ALBANY.

MARCH 8.—Quotations at the yards are as follows :—

Pine, clear, ₱ M	$53 00@63 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in	00 26@00 28
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1½ in. siding, select	38 00@40 00
Pine, 1½-in. siding, common	15 00@18 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1½-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M	36 00@40 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@70 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 00

OSWEGO, N.Y.

MARCH 8.—The following are the quotations :—

Three uppers	$42 00@45 00
Pickings	32 00@35 00
Fine, common	20 00@25 00
Common	14 00@18 00
Culls	11 00@13 00
Mill run lots	17 00@22 00
Sidings, selected, 1 inch	30 00@33 00
1¼ inch	30 00@38 00
Mill run, 1x10, 13 to 16 feet	16 00@20 00
selected	20 00@25 00
shippers	15 00@16 00
Culls, selected	22 00@30 00
Culls	10 00@13 00
1x6 selected for clapboards	25 00@40 00
Shingles, XXX, 18 inch, pine	3 75@ 3 90
XXX, 18 inch, cedar	3 00@ 3 25
Lath	1 40@ 1 50

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$40 00@45 00
Common	17 50@20 00
Culls	11 50@12 50

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Chipman, Renaud & Co.

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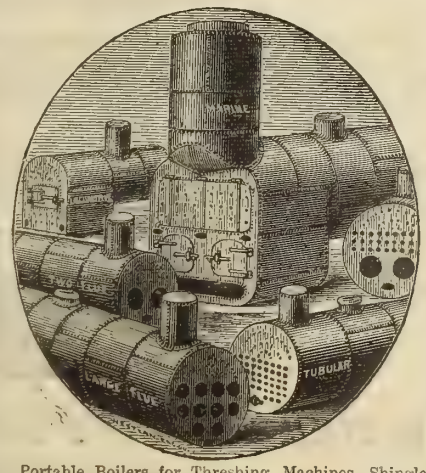

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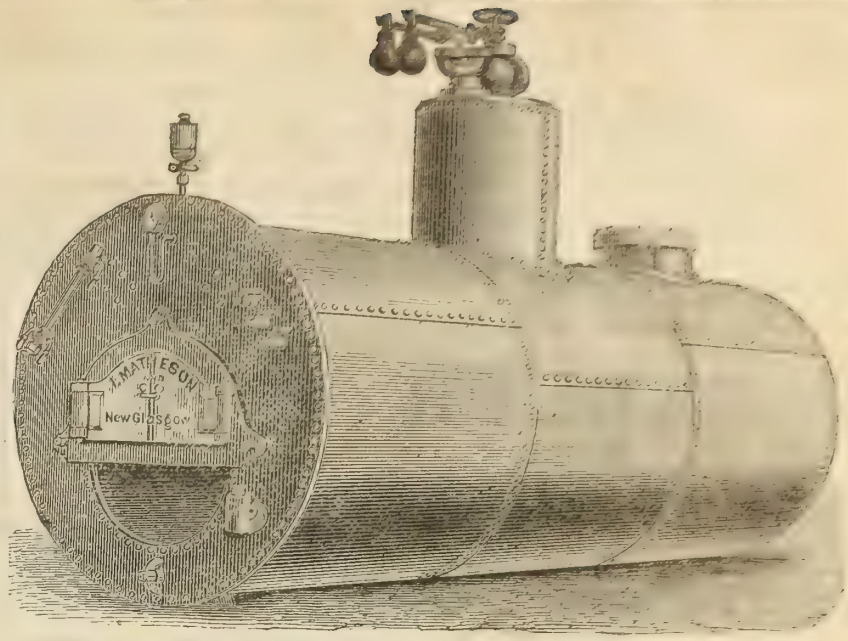

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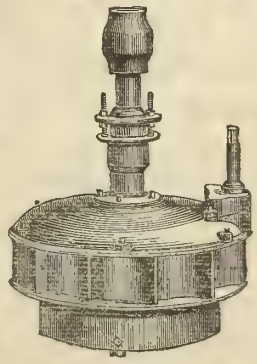

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The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

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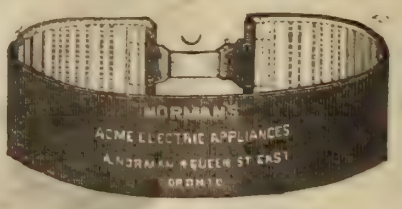

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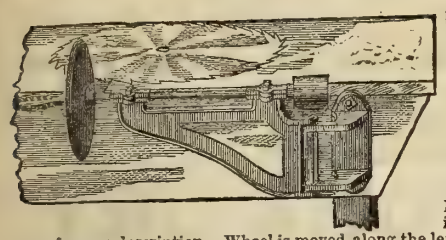

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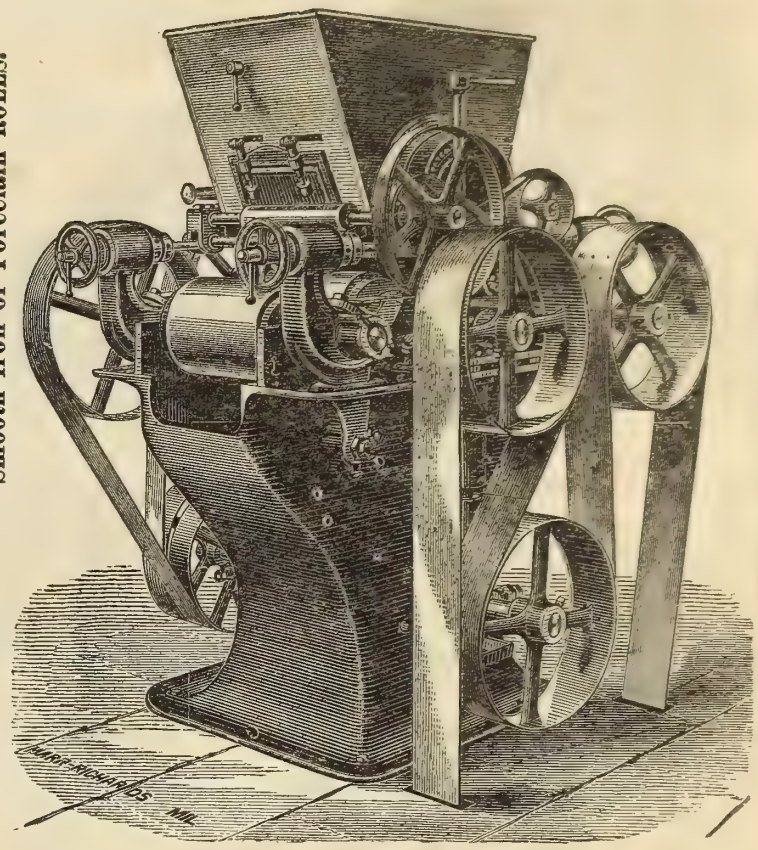

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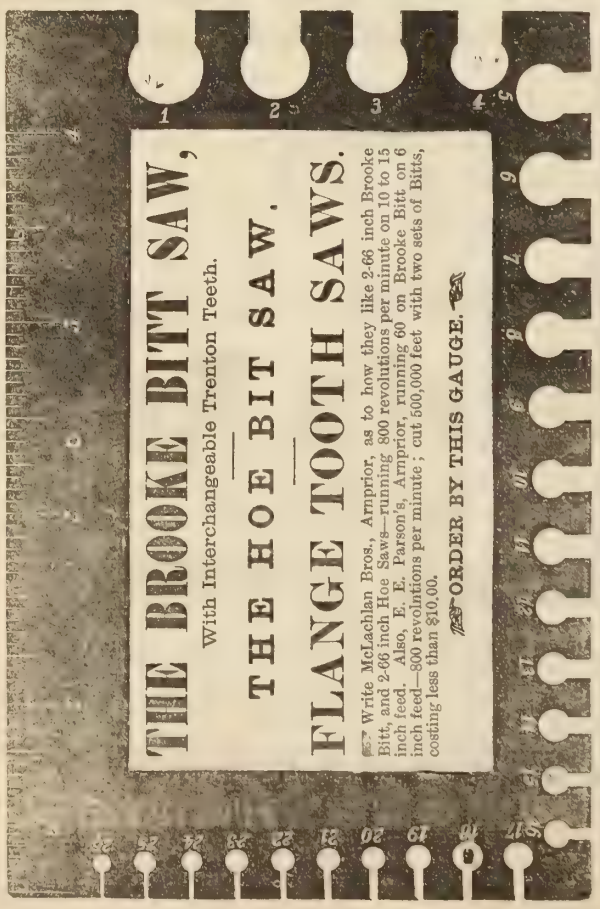

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These Wheels are Wire Strengthened

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Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

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WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS
TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ¾ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ¾ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } Holes, ¾, ⅞ and 1 inch.

Probably more wheels 12x⅜, 12x½ and 12x⅝ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1t5

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Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

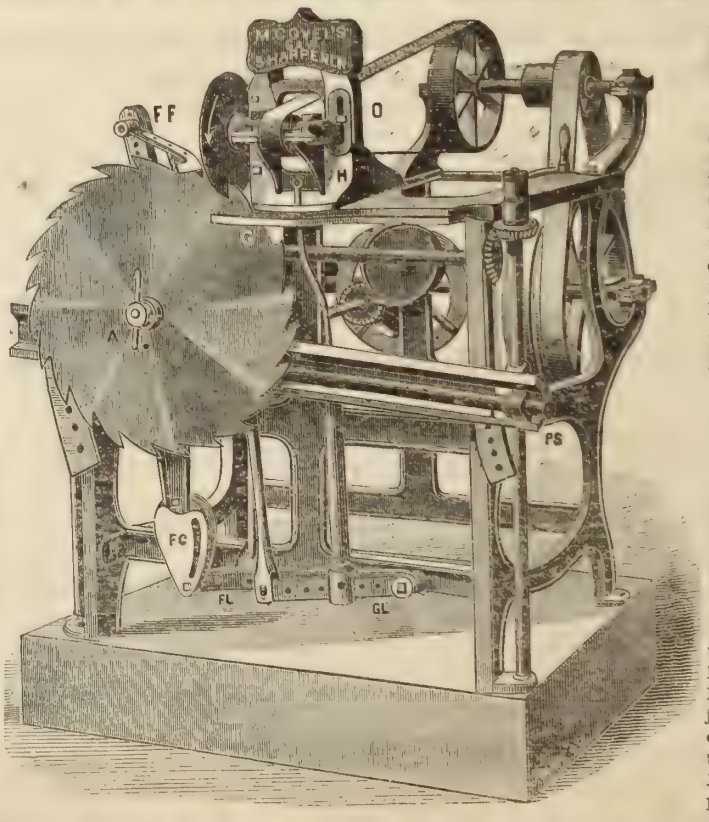
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



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I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

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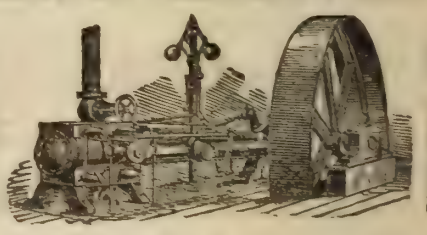

Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2¼ pounds of coal per horse-power per hour. 1ltf

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THE CANADA LUMBERMAN

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PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM

VOL. 2. PETERBOROUGH, ONT., APRIL 1, 1882. NO. 7.

WHAT WE OWE TO THE TREES.

In the April number of *Harper's Monthly Magazine*, Mr. N. H. Egleston has a very interesting and instructive article, entitled "What We Owe to the Trees." As it affords valuable lessons to Canada as well as to the United States, we take from it the following extracts, and will give others in our next issue :—

SCHOOLS OF FORESTRY.

So important a place have the forests come to occupy in the estimation of European people, on account of their value as sources of fuel and lumber, as well as their relations to agriculture, to climate, and to health, that the care and management of them have become one of the most important employments of private landholders, and of the many corporate bodies, including states and kingdoms, which are the possessors of forest domains. The state forests of France, for instance, amount to 3,000,000 acres, it is said, and reach an annual revenue of $5,000,000. Many of the provinces and departments also are large forest proprietors. Germany has about 35,000,000 acres in forest, nearly one-third of which belongs to the state, one-sixth to the communes, and somewhat less than one-half to private individuals. Other European countries have larger forest areas, with correspondingly large revenues. The recognized importance of the forest interest has led to the establishment in most European countries of what are known as schools of forestry—institutions ranking in importance with our colleges and polytechnic schools. They furnish a course of instruction from two to two and a half years in length. During these terms the pupils are expected to spend five hours daily in study, and as many more in attendance upon lectures, or to do about twice the work required in our colleges. Taking for illustration the school near Berlin, the faculty embraces a director, who occupies the chair of forest science, with two assistants in the same department, a teacher of mathematics, physics, mechanics, and meteorology, one of chemistry, mineralogy, and geognosy, one of botany, one of zoology, and one of jurisprudence; and, in addition, a royal forest officer as assistant teacher of construction of roads, geodesy, and plan-drawing, and also a chemist as assistant teacher of geology.

It will be seen, even from such general statements, that the instruction in these schools includes not only the technical or botanical study of forests, but embraces also a complete course in natural science and mathematics, as well as, to a considerable extent, political economy, finance, and jurisprudence. Captain Campbell Walker, chief conservator of forests in New Zealand, giving an account of his visit to the school at Neustadt-Eberswalde, says : "Nothing struck me as more remarkable than the extent and varied nature of the studies required from forest candidates or probationers in Prussia, and the number of years they are contented to spend, first in studying, and then in waiting for an appointment." The students at these schools or academies are expected to spend several years, either before or after their graduation, in practical work in the forest, under the watch and instruction of the forest officers, and it is only after five or six years of such employment that they can reasonably expect to receive a fixed and permanent appointment in connection with the forest service. Yet so respectable and desirable is this employment considered, that it is stated on good authority that a few years ago there were not less than thirty-three barons or baronets holding appointments in the crown forests of Prussia.

The important place which forestry holds abroad may be seen from the fact that there are nine of these schools in Germany, and one or more in every European country except Great Britain, which has hardly any forests to take care of, while the abundant moisture from her surrounding seas, and her exemption from severe summer heats on account of her high latitude, prevent her from suffering from the absence of trees, as she otherwise would.

THE WORK OF DESTRUCTION.

In our own country we have gone to the forests in a kind of freebooter style, cutting, and burning more than we could cut, acting for the most part as though all the while in a frolic or fight, until now at length, after a century or two of this sort of work, we are waking up to the fact that our once boundless woods are disappearing, and that we are likely to suffer no little loss thereby. But it is only the few who seem now to have any adequate sense of our condition as effected by the threatened loss of the trees. In a recent publication, issued by authority of one of our Western States for the express purpose of attracting settlers from European countries, the statistics of its great lumber production are elaborately set forth, accompanied by the assurance that the present enormous consumption of trees for this purpose may be continued ten or fifteen years longer before the forests will be destroyed. The cool unconcern in regard to the future shown in this is very noticeable. "After us, the deluge." A corresponding feeling, though working on a much smaller scale, is seen in an advertisement, and of a class often appearing in our older states. "Brace up, Young Man. You have lived on your parents long enough. Buy this farm, cut off the wood, haul it to market, get your money for it, and pay for the farm....The owner estimates that there will be 500 cords of market wood." And so, all over the country, on the large scale and on the small, the axe is laid at the roots of the trees, and our forests are fast disappearing. It is estimated that 8,000,000 acres of forest land are cleared every year, and that in the ten years previous to 1876, 12,000,000 acres were burned over simply to clear the land.

PLANTING ENCOURAGED.

The very necessities of their situation have aroused the people of some of our Western States to action. In Kansas, Nebraska, and other states liberal premiums have been offered for the encouragement of tree-planting, and already in many portions of the prairie region a perceptible change has taken place, and the eye no longer wanders over great spaces without sight of tree or shrub. Minnesota has her Forestry Association, and its secretary reports that between seven and ten millions of trees were planted in that state during the year 1877, of which more than half a million were planted in a single day, "Arbor Day," as it is called, or tree-planting day, the first Tuesday of May having been fixed upon as the day, and every owner of land invited to devote the day especially to the planting of trees. Similar efforts have been made in other states which are similarly situated in respect to a supply of forest. The great railway companies, whose roads stretch across the treeless prairies, have become in some instances planters of trees, feeling the need of them both as screens from the fierce storms that sweep down from the Rocky Mountains, and as a source of supply for the ties which are constantly needing renewal.

Tree-planters' manuals are published and distributed freely, with a view to aid those who would plant by giving them the experience already obtained in regard to the most profitable trees to plant and the best methods of planting. Thus in some places there is already quite a movement in the right direction. In the reports of planting the figures make an imposing aggregate. But a liberal discount needs to be made for the probable failure of a large percentage of the trees planted. And even with the most generous estimate in regard to the work of planting, what is accomplished as yet is but a fraction of what needs to be done. It is but the feeble beginning of a vast work. The talk is of millions of trees planted. This sounds well. But a good many trees can stand upon an acre, and the latest estimates put the annual decrease of our forest area at seven million acres. So that Minnesota, with all her ardor in this work, has only planted one tree for every acre of trees destroyed. An area equal to that of the State of Maryland is every year swept clean of its trees. This is a large section to be taken yearly out of our forest resources. With all that we are yet doing in the way of tree-planting, the balance is largely against us. With all the interest and energy manifested by the young West on this subject, stimulated by her most pressing need, we are only planting one acre while thirty-five are laid bare by the axe and by fire. And we must consider also that the work of destruction goes on at an increasing rate from year to year as our population and our industries increase, and that the trees which are felled are the product, on the average, of more than a century's growth, while those we plant must grow during a century before they can fill their place.

DESTROYING FORESTS.

In an able article on the subject of forest removal, the Cincinnati *Commercial* says that the conditions that affect the Ohio are still more strikingly apparent in the Cumberland. This great river nearly disappeared in the heats of last summer, and a few weeks ago was so high as to do frightful mischief. There was a time when the water supply was hardly sufficient for Nashville, and again a considerable portion of the city was overwhelmed. * * * It is not the grain, the rails, the bridges and houses that are swept away, the loss of which inflicts in the largest degree impoverishment upon the country, but the yellow floods waste the wealth of the land. There is talk that the Jews will return to Palestine. They can not do it. The country would not sustain a great people. The forests are gone, and with them the soil ; washed off into the Mediterranean and Dead Sea. * * * There are hundreds of creeks within 100 miles of Cincinnati that 50 years ago were ample and beautiful all the year around, and populous with sunfish and silver sides, and that were serviceable in turning mills, that now alternate between dusty gullies and turbid torrents, and the danger of water famine is constantly increasing. * * * The last vestiges of timber will be cleared from the Ohio valley in the course of a few years if the necessity for the abominable system of fences can not be obviated. The thing to do is to abolish it altogether. Then trees should be intelligently cultivated.

LAND GRABBING.

One of our exchanges says that for several years past it has been known that a large area of timber land in northern Minnesota, especially in the region drained by the St. Louis river and streams emptying into Lake Superior, has been unlawfully secured by lumber operators for the purpose of cutting off the pine, or speculating in the lands, or stumpage. This illicit business has been stimulated by the building of the Northern Pacific railroad from the Duluth district westward through Minnesota and Dakota, which has opened up a vast demand for lumber. The method by which the land grabbers proceed is by taking advantage of the pre-emption law. By a liberal application of its provisions a single spectator is able to locate himself repeatedly, and he becomes a permanent homesteader, as it were, on numerous quarter sections of land, and always where the pine stands the thickest and best, and is handy to streams. The way which a single individual, afflicted with the pine craze, will multiply himself for the purpose of covering as much pine land as possible, is a terror to the law.—*Lumberman's Gazette.*

IN THE NORTHWEST.

We take the following extracts from the Annual Report of the Department of the Interior :—

TIMBER, MINERAL, AND GRAZING LANDS BRANCH,
OTTAWA, 31st Dec., 1881.

SIR,—I have the honor to submit the following report of the timber, mineral, and grazing lands branch of this Department.

Statements showing the revenue derived from Crown timber for the year ending 31st October last ; the number of saw mills in the Province of Manitoba, District of Keewatin, and the North-West Territory, with other information respecting the milling interests, and the report of the Crown Timber Agent at Winnipeg, are appended.

An examination of the return from saw mills shows the following quantities of building material as having been manufactured during the year ending 31st October last :—

	Feet, B.M.
Sawn lumber	16,694,323
Shingles	4,082,100
Lath	688,300

The following new mills commenced sawing during the season of 1881 :—

McLaren & Co., Brandon.

Jonasson, Frederickson & Co., Icelandic River.

Manning, McDonald & Co., Eagle Lake.

W. J. Macaulay, Rat Portage.

During the year a new agency was established for the Saskatchewan District, under the charge of Mr. Thomas Anderson. Instructions were given to the agent on the 3rd of September, but owing to the distance to be travelled in reaching Edmonton, his headquarters, the office was not opened for the transaction of business until the middle of December.

Under your instructions of the 31st October last, I proceeded to Winnipeg for the purpose of allotting ground to the various applicants who had applied for permits to cut railroad timber. As the ground covered by these applications was chiefly in unsurveyed territory, it was necessary, to prevent conflict, that the limits should be surveyed ; for this reason Mr. J. McArthur and Mr. A. L. Poudrier, both Dominion Land Surveyors, were sent out with small parties to lay off the locations situate between the Brokenhead River and Darwin. The work lasted a little over a month, and during that time over one hundred miles of line were run. While this work was in progress I went west for the purpose of examining into the cutting of timber in the Big Spruce Bush, Township 10, Ranges 15 and 16 west. These townships were surveyed some years ago, but after careful search no traces of the original lines were seen ; it was, therefore, impossible to ascertain whether licensees were lumbering on the sections covered by their licenses, or to know if the contractors for the Canadian Pacific Railway were cutting on Dominion, Hudson Bay, or railroad lands ; I therefore, on my return to Winnipeg, moved Mr. Poudrier and party from Whitemouth to this locality, instructing him to make a re-survey of the townships in question.

During the time of my stay in Winnipeg, November and December, one hundred and twelve permits were issued, the dues on which amount to $18,912.75, on which advance payments were made amounting to $4,238.20. This not including the permit to the Canadian Pacific Railway Company, whose contractors at present occupy all the land, not covered by license or permit, along the line of the railway between the Brokenhead River and Rat Portage, and by whom corresponding dues will be payable.

I have the honor to be, Sir,
Your obedient servant,
L. A. HAMILTON.

CROWN TIMBER OFFICE,
WINNIPEG, 31st Oct., 1881.

SIR,—I have the honor to submit the following Report of the work of the Crown Timber Office for the year just closed

The completion of the Canadian Pacific Railway to Rat Portage, Lake of the Woods, has opened to the west a very fine tract of pine country. The mills cutting on this lake are the Keewatin Lumbering and Manufacturing Co., Limited, capacity 120,000 ; W. J. Macaulay & Co., capacity 60,000 (commenced to cut 12th October, 1881), and S. H. Fowler, on Rainy Lake, which is to be enlarged this winter to a capacity of 6,000,000 per annum.

There are now seven mills operating on the Little Saskatchewan River, which will supply the demand in this section of the country for some time to come.

The Bird Tail Creek has two mills in operation, and another will be built this winter about fifteen miles north of Birtle.

As yet there are no mills erected on Shell River, those having limits granted them should be compelled to erect them this winter, as this settlement is very much in need of lumber.

The correspondence for the year stand as follows :—

Letters received	1,416
" sent	2,184

During the year 366 permits have been issued.

Number of seizures made	161
Value of timber seized	$ 48,630
Number of saw mill returns rec'd.	80
Amount of lumber given as sold	12,483,343 B. M.
" manufactured	13,608,140 "
" on hand	1,224,797 "
Quantity of lumber manufactured in October and in the log	6,000,000

Number of new mills commenced cutting in 1881, four (4).

The following mills have been removed and rebuilt :—

Removed—Scoble & Dennison (late Smart & Co.), from Hawk Lake to Cross Lake, Canadian Pacific Railway.

Rebuilt—Jarvis & Berridge, Winnipeg, new machinery ; Bell & McKay, Morris, burnt 1879; Clink, D. S., Boyne River, (this mill has changed hands).

The following are prices of lumber at, viz. :—

Rat Portage, pine	$18 to 20 per M., B.M.
Winnipeg, pine	30 to 40 "
" spruce	20 to 25 "
Portage la Prairie, spruce	20 to 25 "
" pine	30 to 40 "
Big Spruce Bush, spruce	18 to 20 "
Brandon, "	20 to 30 "
Rapid City, "	25 to 33 "
Minnedosa, "	20 to 30 "
Strathclair, "	20 to 35 "
Birtle, "	25 to 30 "
Turtle Mountains, poplar	20 to 25 "
Prince Albert, spruce, a very good quality	20 to 40 "

I have the honor to be, Sir,
Your obedient servant,
JAMES ANDERSON,
Crown Timber Agent.

THE AUSTRALIAN TRADE.

Messrs. Gemmel, Tuckett & Co.'s latest report, dated Melbourne, January 17th, states that business at auction has been light, in consequence of stock-taking by the principal members of the trade.

AMERICAN LUMBER.—No sales of any note to afford quotations.

SPRUCE DEALS.—Sales made ex *Lorenzo*, at 3 9-16d. to 3d. per foot 9×3. The market is heavily stocked. The *Priscilla* has arrived from St. John's with 11,927 pieces, which will further depress the market.

Messrs. C. S. Ross & Co.'s circular reports a similar limited amount of sales, and but little change in prices. The arrivals have been the *Ispahan*, *Loch Tay*, *Rodney*, *Serapis*, *Sarah Grice*, *British Ambassador*, *Leamington*, *Melanope*, *Allanshaw*, and *Gulf of Carpenturia*, from Great Britain, with red deals, flooring, etc. ; *Stavanger*, *Solide*, *Svea*, *City of Amoy*, *Johannes Rod*, and *Levant*, from Baltic ports, with red deals ; *Lorenzo*, from Miramichi, with spruce deals ; *Glengarry*, from Quebec, with red pine deals, spruce deals, flooring, t. and g. ceiling, clear pine, shelving, laths, &c. ; *Priscilla*, from St. John's, with spruce deals and laths ; *Rose M.*, from Humboldt Bay, with redwood ; *Kate Davenport*, from Astoria, *California* and *Excelsior*, from Burrard Inlet, and *Xemia*, from Puget Sound, with Oregon timber and laths.

LIVERPOOL.

The *Timber Trades Journal*, of March 11th, says :—There has been a slightly better business done during the past week, although prices are still low, and are likely to continue so as long as sales are pressed upon the market at auction in the persistent manner which has lately been practised. Notwithstanding the very short stock of spruce deals on hand now as compared with that of last year, prices do not improve, as will be seen from the results obtained at the auction sales of last week as detailed below.

The auction sales during the week have been Messrs. A. F. & D. Mackay's, of 3rd instant, when St. John, N.B., spruce deals sold as follows :—

	£.	s.	d.	£.	s.	d.
21 to 26 ft. 3×11	8	12	6			
16 " 26 " 3×11	8	7	6			
18 " 20 " 3×11	8	5	0			
15 & 17 " 3×11	8	2	6			
16 " 3×11	8	5	0			
12 & 14 " 3×11	8	0	0			
13 " 3×11	7	17	6	to 8	0	0
22 " 3×9	8	2	6			
20 " 21 " 3×9	8	0	0			
18 " 3×9	7	15	0			
16 " 3×9	8	0	0	" 8	2	6
15 " 3×9	7	15	0			
13 " 3×9	7	10	0			
12 " 3×9	7	13	9	" 7	13	9
9 " 11 " 3×9	7	7	6			
15 " 3×7	7	7	6			
13 & 14 " 3×7	7	5	0			
12 " 3×7	7	15	0			
9 to 26 " 3×10	7	5	0			
9 " 27 " 3×8	6	7	6			
4th quality deals	7	2	6			

With an average price of about £7 15s. per std.

Another cargo sold as follows—

16 to 26 ft. 3×11	8	7	6
12 " 15 " 3×11	7	17	6
9 " 11 " 3×11	7	15	0
16 " 26 " 3×9	7	15	0
12 " 15 " 3×9	7	10	0
9 " 11 " 3×9	7	5	0
16 " 26 " 3×7	7	5	0
12 " 15 " 3×7	7	2	6
9 " 11 " 3×7	6	17	6
9 " 24 " 3×13 to 16	7	5	0
9 " 26 " 3×10 & 12	7	5	0
9 " 26 " 3×8	7	2	6

With an average of about £7 11s. per std.

Sawn spruce timber, 9 to 20 ft. 5×5 to 7×8 at 10½d. per foot.
Spruce deals 4×5 to 9, 10 to 26 ft., at £8 5s. per std.
Spruce deal ends at £6 12s. 6d. per std.
Spruce palings 5 ft. 3×1 at 82s. 6d. per mille.
" 4 ft. 3×1 at 62s. 6d. "

Prime St. John, N.B., birch timber—

10 to 26 ft. 20 to 22 in. deep	2s. 7½d.	cub. ft.
10 " 25 " 17 " 19½ "	2s. 3½d	"
10 " 20 " 18 " 18½ "	2s. 1d	"
10 " 28 " 18 "	1s. 11½d	"
10 " 29 " 17½ "	1s. 10d	"
10 " 28 " 17 "	1s. 8½d	"
8 " 29 " 16½ "	1s. 8d	"
10 " 27 " 16 "	1s. 6½d	"
10 " 25 " 15½ "	1s. 6½d	"
11 " 30 " 15 "	1s. 6½d	"
18 " 26 " 14½ "	1s. 5½d	"
9 " 28 " 12½ " 14½ "	1s. 4½d	"

GLASGOW.

The *Timber Trades Journal*, of March 11th, says the arrivals of timber at Clyde ports during the past week comprise one cargo of Moulmein teak, one of pitch pine from Doboy, U.S., and sundry parcels of maple, walnut and ash per steam liners from New York. At Grangemouth there have been two cargoes imported, one from Skien, consisting of spars, timber and props, and the other from Memel of timber, deals, sleepers, &c.

The public sale held at Yorkhill Wharf, Glasgow, on the 2nd inst., as undernoted, was quiet, and the attendance not quite as large as usual, the demand apparently being chiefly for present requirements. Of the goods catalogued a considerable portion was withdrawn, prices offered not reaching broker's limits.

This auction sale following so close upon the last may account partly for the limited business done. Spruce deals, being very scarce, sold at good prices. The market stands greatly in need of spruce deals as they are now all or nearly so out of first hands.

AUCTION SALE.

On 2nd inst. at Glasgow, Messrs. Singleton, Dunn & Co., brokers :—

Quebec 3rd spruce deals—

13 ft.	9×3	11½d	per cub. ft.
11 "	9×3	11½d	"
10 & 11 "	9×3	11½d	"

Miramichi, N. B., spruce deals (av. 2nds)—

12 ft.	9×3	12½d	"
13 & 14 "	9×3	11½d	"
11 "	9×3	11d	"
9 & 10 "	9×3	11½d	"
16 "	7×3	10d	"
13 & 14 "	7×3	10d	"
12 "	7×3	10½d	"

Miramichi 2nd pine deals—

10 to 12 ft.	9×3	13½d	"
12 to 24 "	7×3	12½d	"

Richibucto pine ends—

3 to 8 ft.	7/18×3	10½d	"

Quebec 3rd yellow pine deals—

12 ft.	9×3	12½d	"
12 to 16 "	7/11×3	11½d	"

Quebec 1st yellow planks—

9 & 10 ft. 7/21×2 (chiefly 7/10 in.) 1s. 11d. per cub. ft.

The accidents of life are unavoidable, but should a writer accidentally get hold of a bad pen, the remedy is easy : procure one of Esterbrook's Steel Pens. The Stationers have them. Brown Bros., Toronto, wholesale dealers.

DESERVING OF PRAISE.—Too much cannot be expressed in favor of that unsurpassed remedy for coughs, colds, asthma, croup, sore throat, and all lung complaints. If you suffer from neglected cold, try Hagyard's Pectoral Balsam. The cost is trifling, only 25 cents.

Quebec Timber Company.

The *Mail* says that another proof of the fact that Canada is attracting more attention abroad than ever before in her history, is furnished in the fact that there is now before Parliament a Bill entitled the Quebec Timber Company Incorporation Bill, applied for by Scotch capitalists, who propose investing a very large sum of money in timber lands, mills, and shipping. Though there may not be many of those "tall chimneys" in connection with this enterprise, it involves an expenditure of money that must benefit all classes of the community.

JOHN PRESQUE, a government timber thief, was examined at Milwaukee, Wis., March 6, and held for trial in the United States Court, in the sum of $500.

HYDROLEINE

(HYDRATED OIL.)

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HYDROLEINE *mixes* perfectly with *water*, showing a complete artificial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE IS NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation* ; this, at the same time, *renders its use economical* in the *highest degree.*

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50,000 Feet Tough White Oak, 50,000 Ft. White Ash, 50,000 Feet Rock Elm, all first quality ; quote price at Ayr station ; to be delivered by August, 1882. Specifications furnished on application.

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6L7 Winnipeg, Manitoba.

J. T. LAMBERT,
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FOR SALE.

150 Mlls.	White Pine,	1 x 10 Stock.
175 "	do	1 x 12 "
11 "	do	2 x 10 "
20 "	do	2 x 12 "
140 "	do	1 inch Siding
20 "	do	1½ "
40 "	do	2 x 10 Joists.
16 "	Cedar,	3 x 6 "
19 "	Basswood,	1½ inch.

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Numerous of such testimonials can be seen at my office, proving that they are doing a good work and worthy the attention of all sufferers. Circulars free. No charge for consultation.

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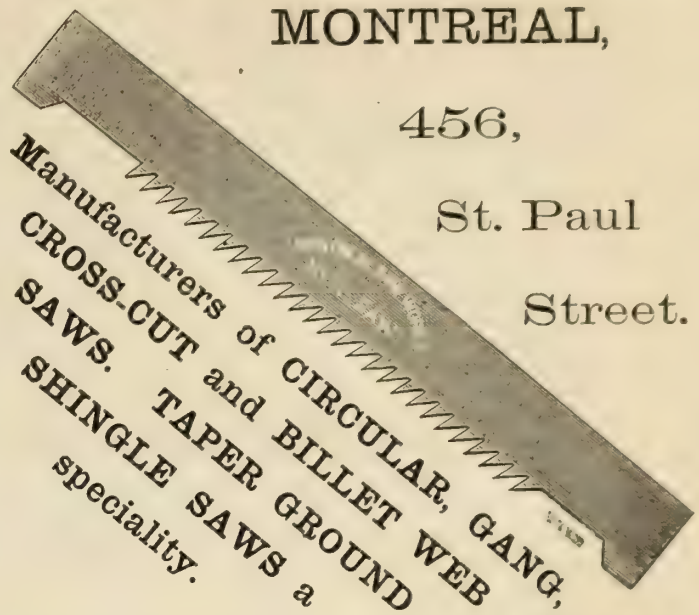

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P.O. BOX 556. TORONTO.

CLOG-MAKING AT BOOTLE.

On February 1st Lord Claud J. Hamilton, M.P., paid a visit to the works of the Mersey Wood-working Co., Bedford Place, Bootle, and inspected the whole of the processes, the visiting being probably suggested by the circumstance that from time to time extensive purchases of timber have been made by Mr. R. J. Jones, the manager, from the Duke of Abercorn's estate, of Baronscourt, in the North of Ireland. Besides this personal interest the unique character of the works was itself sufficient to make their inspection well worth a visit. From an interesting report in the *Bootle Times* we learn that the principal manufacture carried on at these works is that of wooden soles for what are called in Lancashire "clogs," and in France "sabots." Familiar as are the "wooden shoon," few persons would conceive how ingeniously the manufacture of the soles are conducted and how vast are the quantities which are issued daily, weekly, and hourly from these works. Lord Claud J. Hamilton first visited the yard, where there are usually stored from two to three thousand tons of timber. The native timber is first stripped of its bark, the foreign logs being already barked when imported. The logs are then raised from the yard by a crane and cut up by circular saws into segments averaging about a foot long. These segments are next cut into planks of convenient size, a dozen saws working at once, and the planking being effected with marvellous rapidity, about 60 tons of wood being cut up into clog soles every day. On the side of each plank a metal gauge is laid, and a girl with a pencil roughly outlines the size and number of soles which can be made from it. The planks pass on to a band saw, where they are cut up into blocks with the required curvature for a sole. Thence they pass to the roughing machine, which roughly shapes them. Another machine cuts the sides; another shapes the shanks; yet another rounds the heels; and yet another shapes the toes. They pass next to a revolving cutter, which roughly hollows the upper side of the sole, and subsequently this hollowed surface is smoothed in another machine. They pass next through the various finishing machines, where the bottoms, sides, shanks, heels, and toes are successively rendered perfectly smooth by friction with swiftly revolving bands covered with a mixture containing ground glass and other attritive materials, which scour them in the same way as if with sand or emery paper. They next go to the gripping machine, which bevels the edges, leaving a "grip" to which the leather boot uppers can be fastened. It will thus be seen that the sole of each wooden shoe, from the time when the log of wood is first cut into segments to the time when the edges are bevelled by the gripping machine, passes through fifteen different machines, and as the required sections are marked by hand, and the right and left sides of toes and heels are separately shaped, each sole passes through the hands of eighteen different workpeople. Perhaps the advantages of the "division of labor" have never been exhibited in any manufacture with more remarkable results. The motive power for these various processes is supplied by a pair of 60-horse power compound high and low pressure condensing engines. The waste wood is also manufactured at these works into a valuable commercial product. It is chopped up by machinery, treated with chemicals, steeped to a condition of softness, and all knotty pieces having been removed, the softened woody fibre is drained and compressed between a series of rollers until it is transformed into sheets of pulp, or rather half-made paper, which is supplied to paper manufacturers, and being mixed with other materials is transformed into the best qualities of paper. Lord Claud J. Hamilton was shown a sample of fine rose-tinted note paper, which was made chiefly from the waste cuttings off wooden clog soles. The works include a chemical laboratory and joiners', fitters', and grinders' shops. The extensive cellars are stored with clog soles, which are kept there for the time necessary to season the wood before being finished, and vast quantities of finished goods are passing daily from the warerooms to English, continental, and colonial markets. Lord Claud J. Hamilton inspected every process with considerable interest, and we imagine that to him and to others who may read this description of what he saw "the clang o' the wooden shoon" will henceforth acquire a new significance.—*Timber Trades Journal.*

NORTHWESTERN TIMBER LIMITS.

A parliamentary return has been brought down giving particulars of all timber limits in Manitoba, Keewatin, and the North-West from the time of the acquisition of that country down to the 15th of February last. It is as follows:

Name.	Locality.	Nature of Grant.
Turner & Co.	White Mouth River	Yearly License.
Germain & Co.	White Mouth River	" "
J. Bergen & Co.	White Mouth River	" "
C. P. Railway Company	Broken Head River	Permit.
M. H. Cochrane	Bow River	Yearly License.
J. A. Stephenson	Boggy Creek	" "
Department of Indian Affairs	Pincher Creek	" "
Geo. D. Farmer	Red Deer River	21 years' lease.
Miller & Scott	Assiniboine River	Yearly License.
McLean & Sinclair	Carrott River District	" "
Ed. Murphy	Stinking and Pelican Lakes	21 years' lease.
Armitage & McCullough	Township 20, Range 20	Yearly License.
Cheveyer & Chabot	Shell River	" "
Messrs. Shields, Haggart, McLaren & Nicol	Shell River	" "
P. Kelly	Lake Winnipegosis	Yearly License.
Pratt & Smith	Lake Winnipegosis	" "
Wm. Smith	Lake Winnipegosis	" "
Joseph Whitehead	Lake Winnipegosis	" "
Peter McArthur	Lake Winnipegosis	" "
Joseph Whitehead	White Mouth River	" "
Capt. H. S. Moore	North Saskatchewan	" "
Cook & Sutherland	Saskatchewan	" "
Dr. Bown	Big Island, Lake Winnipeg	" "
W. J. McAulay	Lake of the Woods and Rainy Lake	" "
Stephen H. Fowler	Rainy Lake and Seine River	" "
R. Fuller & Co.	Lake of the Woods	" "
McAuley, Ginty & Sprague	Rosseau River	" "
McAulay & Ginty	Winnipeg River	" "
Dick & Banning	Lake Winnipeg	Yearly license.

EXTRAORDINARY ECONOMY.

With the majority of people wood is wood. The possibility of making it into articles of commerce, distinct from wood, does not enter their minds. The *Lumberman* is indebted to Mr. J. A. Mathieu, a French chemist, who visited this office on Saturday last, and exhibited several of these articles. In a dozen bottles he had as many different liquid preparations. There was acetate of nickel, acetate of zinc, acetate of alumina, acetate of copper, acetate of lead, acetate of iron, acetate of soda, of manganese and of lime. These preparations are used for painting, preserving wood, tanning, dyeing, and in the manufacture of paper, ink, colors, varnish, and in a hundred-and-one other directions. The principal ingredient of them all is acetic acid, which is obtained in the process of carbonizing wood, retorts for which Mr. Mathieu has invented and patented. The first thing desired is charcoal, and the acid spoken of comes naturally. It is a fact that has been known for a good while that the demand for charcoal has equalled the supply. Since it has been known that charcoal iron is the best, the demand has largely increased. Heretofore a good result from a cord of wood was 45 bushels of charcoal. Mr. Mathieu was of the opinion that too much wood was wasted, and set about to devise a remedy, and with perfect success. From a cord of beech, maple or birch wood he obtains from 60 to 70 bushels of charcoal, and if we may believe Mr. W. H. H. Gere, of New York, of the Gere Iron & Mining Company, at Port Leyden, N.Y., it is of very superior quality. The use of it enabled him to put 41 pounds burden to the bushel of coal, whereas before there had been but 30 pounds to the bushel; and it bore an extra revolution of the blast cylinder. If this be so, the value that the invention will be to the iron industry will represent a vast sum of money. Mr. Mathieu had with him a piece of a beech limb, a foot and a half long, carbonized, that was so hard and resonant that when struck with a pencil it gave forth as much sound as though it were steel. Charcoal from peat bog can be made in the same retorts, and it is said that two tons of dried peat will make nearly a ton of hard charcoal. Mr. Mathieu also exhibited a preparation for fuel, composed of sawdust and charcoal dust. It weighs 30 pounds to the bushel, burns without disintegrating, and will last as long as coke. As a fuel for locomotives it will undoubtedly be valuable. Tanbark can be mixed with charcoal dust and serve the same purpose. We were much interested in Mr. Mathieu's invention, not only on account of its novelty, but because it promises to add to the worth of forests that have been considered of little value. Charcoal made of pine, while not so valuable generally as that made of hardwood, is better for some purposes. If the slabs and sawdust that accumulate to such an extent at the milling points can be turned into charcoal and fuel, and sold at a good, round profit, it will be a stroke of business that will make every extensive lumber manufacturer laugh.—*Northwestern Lumberman.*

PRESERVING FENCE POSTS.

A correspondent at Benton Harbor, Mich., sends us the following statement by Parker Earle (a widely known horticulturist), in the Chicago *Times*, and requests our opinion of his mode for preserving fence posts. In answer it may be stated that no single experiment, or no single series of experiments under like circumstances, can be adopted as a rule for unlike conditions. Our own observations and experiments have led uniformly to the opinion that coal tar applied warm to dry wood) is a good preservative for timber underground, or exposed to wet and shade, but does more harm than good if exposed to the heat of the sun and weather. But varying circumstances may vary the rule. The character of the soil may have a controlling influence, and experiments should be repeated in different places and on different kinds of wood.

The experiments of Mr. Earle are a valuable contribution to such a series of trials. For general application, we would recommend first impregnating the whole of the post with crude petroleum as a general preservative, and when dry apply hot tar to the portion going under ground, but none above. The petroleum will penetrate the pores, and the tar coating will hold it there. The following is Mr. Earle's statement:—

In building a fence around our young orchard, several years ago, we tried many plans for preserving the posts. Having occasion to remove the fence this winter, we noted the condition of the posts as follows:—Those set with no preparation were decayed an inch or more in thickness; those coated with a thick wash of lime were better preserved, but were quite seriously attacked by worms; those posts coated with hot tar were perfectly sound as when first put in the ground; those painted with petroleum and kerosene were equally sound and as good as new. In future we shall treat all posts in the following manner before setting: Let the posts get thoroughly dry, and then, with a pan of cheap kerosene and a whitewash brush, give the lower third of the post, the part to go into the ground, two or three good applications of the oil, letting it soak in well each time. Posts so treated will not be troubled with worms or insects of any kind, but will resist decay to a remarkable degree. This we find to be the simplest, easiest, cheapest, and best method of preservation.—*Country Gentleman.*

MAPLE LOGS.

A Wexford, Mich., county paper has the following regarding operations in hardwood on the Manistee river:—An almost unlimited source of wealth to the people of this country has just commenced development in the offer of certain parties to purchase hard maple logs delivered on the bank of the Manistee river. Hitherto it has been supposed that maple logs would not float, and consequently that all the vast hardwood forests in this and adjoining counties would have to be burned up before the land could be made available for farming purposes. But if this enterprise of running maple logs to Manistee should prove successful, not only will it prove a great financial benefit to the country by the increased amount of money which will be put in the hands of our farmers as the price of their maple logs, but it will produce a more rapid development of farming industry, by making it much more easy for men of limited means to clear up their farms. We shall await with considerable anxiety the result of this experiment of floating hardwood logs to market.

READY MADE HOUSES.

A gentleman living in Ottawa has conceived the novel idea of constructing wooden houses in sections, of a size admitting their transportation on ordinary flat cars. These sections, which are to be built in this city, are to be taken to Winnipeg or other places in Manitoba, and erected there, some of which are owned by the speculator and others which are to be rented. The project appears to be feasible enough, and as lumber and labor are both much cheaper here than in Manitoba, and the cost of transport reasonable, there is no reason why the speculation should not prove a paying one. The parts are to be substantially built, and on arriving at their destination, a few hours' work will put them together, and as the oak pins with which the sections are joined are easily driven, it is calculated that in one and a half days a dwelling 18 by 20 feet, with kitchen, 12 by 14, attached, can be put in readiness for occupation.

Timber Trespassers.

A New York paper is concerned about a system of reform which will prevent, throughout the northern states, what it terms a "reckless, criminal, and suicidal destruction of timber which will, in the remote future, entail disaster upon the wood-working industry and the country at large." Referring to the facts that there are 65,000 wood-working establishments in the United States, employing 400,000 persons, and using $350,000,000 worth of material yearly in the manufacture of wooden-ware alone, as well as 8,000,000 more workmen employed on articles partially constructed of wood, the paper urges that congress shall interest itself as to preventive measures against the wholesale robberies of forests. Stringent restrictions against unnecessary waste are advocated to govern all sales of timber land.

"On the Hip."

This rather inelegant expression, used popularly to indicate that condition of things in which one person holds another securely by some circumstance, work or act, finds literal exemplification in the following narrative by Mr. John Rourk, of Ottawa, Canada. Mr. Rourk says: I have been subject to hip disease for 8 or 9 years, and have tried all kinds of remedies, but found nothing to give me any relief until a friend advised me to try St. Jacobs Oil. I tried it, and after using 1½ bottles I am entirely relieved of pain, and have not been troubled since, now nearly six months. This is what people would call getting hip disease "on the hip."

THEIR BOUNDEN DUTY.

The Montreal *Journal of Commerce* says, in alluding to the lumber market, that there is no change to report; any estimate or opinion now formed of the quantity of lumber to be produced this season is largely guesswork—as there are so many contingencies in the way, bad roads, horse sickness, etc., etc., that would lead many to suppose that the stock will be very light. Should we yet have wintry weather and heavy falls of snow, however, there can still be a good deal of drawing done, besides there are the logs stuck last season to come forward. If there is a good drive there will be a good, fair quantity, and, with present high prices, the country will be far more benefitted than if an immense stock were manufactured and sold at low prices. On the whole, the hindrances and drawbacks to overproduction are regarded as a special benefit. The work of denudation of our forests is progressing at a tremendous rate, and anything that tends to prolong the production will be our gain in the future. The present proprietors of timber lands seem to feel it their bounden duty to strip the country of all timber for present gain.

Forests and Rainfall.

In alluding to the connection between forest and flood, the Providence *Journal* of a late date says that "violent floods alternating with extreme and long continued low water, each damaging to navigation and commerce, have been noticed in the Ohio valley now for some years, and with such regularity that they can no longer be ascribed to exceptional conditions. The river is more and more assuming the conditions of the Nile, or rather of those which flow through the treeless deserts of Arizona and New Mexico, which are raging torrents at one season and dry beds of sand at another. Nor is there any doubt that it is from the same cause. Whatever effect forests may have on the rainfall itself, and there is no doubt that it is very considerable, it is certain that its leaves and roots absorb and hold it in longer solution, and that instead of pouring down into the streams at once, it slowly percolates and its flow extends over days instead of hours."

Antagonistic Trees.

It is said that certain kinds of wood, although of great intrinsic durability, act upon other woods of equal durability, in such a way as to induce mutual destruction. Experiments with walnut and cypress, and cypress and cedar, prove that they will rot each other while joined together, but on separation the rot will cease, and the timbers remain perfectly sound for a long period. This interesting fact suggests an analogy to the philosopher that reaches beyond the province of the woodworker. If some enduring woods have an antagonism to each other, so that a mutual rot is induced when in contact, why may not certain individuals of a strong nature induce a mutual rot when they come in contact with eaeh other. Carrying the analogy into the close relations of matrimony the possibilities that it suggests are simply awful!

The Chicago Lumbermen's Exchange.

At the recent annual meeting of the Lumbermen's Exchange, at Chicago, the Secretary reviewed the operations of the institution since its organization and during the last year past. The lumber receipts aggregated 1,906,639,000, 866,075,000 shingles, and 104,109,000 lath, while the coarser forest products by lake navigation amounted to 2,846,340 posts, 4,205,560 railroad ties, 33,055 cords of wood, 2,254 cords of slabs, 29,702 cords of bark, 86,922 telegraph poles, 25,118 pieces of piles. About one-sixth of the lumber is classified as hardwood. The Exchange commenced the year with a membership of 85, and closed with 126 names on the rolls, including eight firms from outside points.

SHREWDNESS AND ABILITY.—Hop Bitters so freely advertised in all the papers, secular and religious, are having a large sale, and are supplanting all other medicines. There is no denying the virtues of the Hop plant, and the proprietors of these Bitters have shown great shrewdness and ability in compounding a Bitters, whose virtues are so palpable to every one's observation. —*Examiner and Chronicle.*

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

The Wood-Working Industry.

The following figures compiled from the U. S. census returns of 1880 may prove interesting to those engaged in any branch of the wood-working industry:—There are in the United States more than 65,000 establishments employing 40,000 persons, and using material of the value of over 350 millions of dollars yearly in the manufacture of articles from wood alone. Besides these there are over eight million workmen employed on articles constructed partially from wood, and using that material to the value of $6,000,000 yearly.

MAINE NEWS.—Hop Bitters, which are advertised in our columns, are a sure cure for ague, biliousness and kidney complaints. Those who use them say they cannot be too highly recommended. Those afflicted should give them a fair trial, and will become thereby enthusiastic in the praise of their curative qualities. *Portland Argus.*

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly to it wonderful effects.

CHILBLAINS.—These troublesome complaints may be speedily cured by Hagyard's Yellow Oil, the great Rheumatic remedy, which, as an external application and an internal remedy has a wider range of usefulness than any similar preparation in the world. All druggists sell it. Price 25c.

CHEAP AND GOOD.—For 50 cents you can purchase from any reliable druggist a box of Mack's Magnetic Medicine, which contains forty-five doses; this is cheaper than any other similar medicine sold, and while it is cheap our druggists say it is the best, and gives satisfaction in all cases. Read the advertisement in another column.

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

TAKE CARE OF THE LITTLE ONES.—Children are the mother's idol, the father's pride; they are entrusted to your care to guide and protect, to fill positions of honor and trust. If you truly feel the responsibility of your trust, and want to make the duties of your office as light and pleasant as possible, don't allow a slight cold to prey upon the little ones, for even a single day or night may reveal the dreaded destroyer, Croup, but a few doses of Down's Elixir, if taken in season, will banish it, as well as Whooping Cough, Bronchitis, and all throat and lung affections. For sale by all dealers in medecine. Price 25 cents and a $1 per bottle.

B B B
Burdock BLOOD Bitters

Burdock Healing Ointment should be used in connection with Burdock Blood Bitters for curing Ulcers, Abscesses, Fevers, Sores, &c. Price 25 cents a box. T. MILBURN & CO., SOLE AGENTS, TORONTO

If you are a man of business, weakened by the strain of your duties avoid stimulants and use **Hop Bitters.**

If you are young and discretion or dissipated or single, old or poor health or languishness, rely on **Hop Bitters.**

If you are a man of letters toiling over midnight work, to restore brain nerve and waste, use **Hop B.**

suffering from any intion; if you are marryoung, suffering from ing on a bed of sick- **Bitters.**

Whoever you are, whenever you feel that your system needs cleansing, toning or stimulating without *intoxicating*, take **Hop Bitters.**

Thousands die annually from some form of **Kidney** disease that might have been prevented by a timely use of **HopBitters**

Have you dyspepsia, kidney or urinary complaint, disease of the *stomach, bowels, blood, liver or nerves?* You will be cured if you use **Hop Bitters**

D. I. C. is an absolute and irresistable cure for drunkeness, use of opium, tobacco, or narcotics.

If you are simply weak and low spirited, try it! **It may save your life. It has saved hundreds.**

HOP BITTERS NEVER FAIL

Sold by druggists. Send for Circular.

HOP BITTERS MFG CO., Rochester, N. Y. & Toronto, Ont.

Caledonian Hotel,

GRAVENHURST.

JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station. Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. 1L10

Simcoe House,

CORNER FRONT and SIMCOE STS.

TORONTO, ONT.

☞ Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms.

The Most Convenient House to all Trains.

1L21 GREEN & SON, Proprietor.

The American Hotel,

BARRIE, ONT.

Collier Street, Adjoining the Market.

RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.

☞ Every accommodation for Commercial and LUMBERMEN.

1Ltf W. D. McDONALD, Proprietor.

CHOPPING AXES

(Made to Order and on hand.)

MILL PICKS DRESSED in a first-class style. Those shipped by rail will be returned promptly.

☞ Lance Tooth Saws Gummed. AXES WARRANTED. 3L24

W. HERLIHEY, Lindsay.

17 YEARS' EXPERIENCE.

HOWIE'S DETECTIVE AGENCY

OFFICES, 32 KING STREET EAST,

TORONTO, ONT.

All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward. 1yL5

J. K. POST & CO.

LUMBER MERCHANTS

And Shipping Agents.

OSWEGO, N. Y.

1Ltf

Messrs. W. H. SAMUEL & Co.,

LIVERPOOL, ENGLAND,

Among the oldest established importers of American manufactures being open to place large orders for

BROOM HANDLES,

CLOTHES PINS,

VENETIAN LATHS,

Etc., Etc.

Manufacturers of the same will please state stock on hand, and maximum quantities deliverable in three months, with lowest cash prices. Freight paid to any seaport in the United Kingdom.

Address at once as above with full particulars. 2L5

On 30 DAYS' TRIAL

We will send on 30 Days' Trial

Dr. Dye's Celebrated

Electro-Voltaic Belts

AND SUSPENSORIES,

And other

ELECTRIC APPLIANCES

TO MEN

Suffering from Nervous Debility, Lost Vitality, Vigor and Manhood, resulting from **Abuses and other causes**; or to any person afflicted with **Rheumatism, Neuralgia, Paralysis, Spinal Difficulties, Lame Back, Liver and Kidney Troubles Ruptures, and other Diseases of the Vital Organs.** Speedy relief and complete restoration to health guaranteed. **These are the only Electric appliances** that have ever been **constructed upon Scientific principles.** Their thorough efficacy has been practically proven with the most **wonderful success. We have the testimony of thousands who have been quickly and radically cured by their use.** All we ask of any person is to **give them a trial for 30 days and be convinced.**

Send at once for **Illustrated Pamphlet, giving all information, free.** Address

VOLTAIC BELT CO.,

6L6 MARSHALL, MICH.

J. DAVIES & Co.

46 Church Street, Toronto.

Sells all sort of Lumber on Commission. Advances on Consignments. Prices given on application. Waste Stocks disposed on very low Commission. 1L11

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GRAY'S SPECIFIC MEDICINE.

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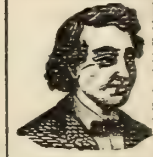

THE GREAT ENGLISH REMEDY, an unfailing cure for Seminal Weakness, Spermatorrhea, Impotency, and all Diseases that follow as a sequence of Self Abuse, as Loss of Memory, Universal Lassitude, Pain in the back, Dimness of Vision, Premature Old age, and many other disease that lead to Insanity or Consumption and a Premature Grave. ☞ Full particulars in our pamphlet, which we desire to send free by mail to every one. ☞ The Specific Medicine is sold by all druggists at $1 per package, or six packages for $5, or will be sent free by mail on receipt of the money by addressing

TRADE MARK

AFTER TAKING BEFORE TAKING

THE GRAY MEDICINE CO.,

1L12 Toronto, Ont.

N. H. DOWNS' ELIXIR!

Vegetable Balsamic

This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:

Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,

and every species of oppression of the **Chest and Lungs.** In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that

CONSUMPTION

is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry—then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all **morbid irritations and inflammation** from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,

IT HEALS THE ULCERATED SURFACES

and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent articles, which are of so drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the cause, generally destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price **25cts.** and **$1** per bottle. Sold everywhere.

HENRY, JOHNSONS & LORD, Props, MONTREAL, P. Q.

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

Terms of Subscription:

One copy, one year, in advance	$2 00
One copy, six months, in advance	1 00

Advertising Rates:

Per line, for one year	$0 90
Per line, for six months	50
Per line, for three months	30
Per line, for first insertion	10
Per line, for each subsequent insertion to 3 mo's.	05
Cards not occupying more than 12 lines (1 inch) per annum	8 00
Cards not occupying more than 12 lines (1 inch) for six months	5 00
Cards not occupying more than 6 lines per annum	5 00
Cards not occupying more than 6 lines, for 6 mo's	3 00

Special rates will be made for page, half page and column advertisements.

Advertisements intended for insertion in any particular issue should reach the office of publication at least three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. APRIL 1, 1882.

THE water mill of the Parry Sound Lumber Company commenced running on March 23rd, having been shut down for only two months.

THE Parry Sound Lumber Company have added another vessel to their fleet, having purchased the schooner *Sir C. T. Van Straubanzee* recently.

We learn that Mr. C. H. Edwards, lumber dealer, Yonge street, has been shipping several carloads of dressed lumber from Toronto for Winnipeg.

DURING the year 1881 one prominent match firm paid the United States Government $4,500,000. This amounts to a total manufacture of 45,500,000,000 matches, or 277,500,000 five-cent boxes.

AN order has been issued to have the timber booms placed in position in the Northern slips at Toronto. Men were engaged on Saturday, March 18, having this done. This looks as if timber was to be brought down directly.

CAPT. WM. JOHNSON'S fine fleet of lumber vessels—the schooners *Alice*, *Olga*, *Clara*, and *Ida*—are being fitted out at Chicago for the season's business. A third mast has been put into the *Clara*, adding greatly to her beauty, and makes her one of the handsomest and neatest three-masters sailing the great lakes.

IN another column will be found the advertisement of C. Norsworthy & Co., of St. Thomas, offering for sale the iron work of cars for pole roads. A diagram will also be sent, from which the woodwork of the car can be constructed. These pole roads are largely used in the States for drawing logs, &c. They are cheaply and speedily laid down, and make hauling easy.

THE Winnipeg *Times* says that the following circular issued by the C. P. R. authorities will show the prices to be paid for all kinds of timber cut upon their limits:—Fence posts, 8 feet 6 in., 1 cent each; telegraph poles, each lineal foot over 22 feet, 1 cent; railroad ties, 8 feet long, 3 cents each; rails, 12 feet, $2 per thousand; stakes, eight feet long, $2 per thousand; shingles, 60 cents per thousand; square timber and saw logs, of oak, elm, ash and maple $3 per thousand feet; all other woods except poplar, $2.50; poplar, $2; all other products of the forest not enumerated, 10 per cent. *ad. valorem.*

THERE are 100,000 cedar ties, and 100,000 posts banked at Tawas, Mich., as well as large quantities of telegraph poles. Large operating is also done in cedar paving-block timber, which is hauled to the several shipping points along the shore.

THE following paragraph from the Chignecto *Post*, of Sackville, N.B., dated March 16, will be read with surprise in Ontario:—Lumbermen work on, chopping the trees off somewhere about the middle, owing to the depth of snow. If the snow be thin next winter they may go over the ground again and cut another log from every stump. Large piles of timber have been got out, however, and mills are expected soon to boom.

THE *Timber Trades Journal* says that in consequence of the late storms on the Clyde coming so close after the heavy storms of January last, and before the timber ponds had been properly secured, there has again been much inconvenience experienced by timber merchants, and there will be no sales of timber during March. It is hoped that with fair weather the ponds will be put all right again, and the scattered timber properly arranged for sales coming on early in April.

FORESTRY CONGRESS.

We learn from Dr. J. A. Warder, President of the American Forestry Association, that the Society over which he presides will meet in Cincinnati, Ohio, on April 25-29, when papers will be read, followed by practical discussions.

The National Forestry Congress and the Presidential Arbor-day will also be held during the same week. The Congress will be *international*, rather than national, for a number of Canadian gentlemen have promised to attend, and any other visitors who are interested in the subject of forestry will be welcomed.

OTTAWA TIMBER CUTTING.

A gigantic stick of square timber measuring 50 feet in length and 30×30 inches square, containing 312 feet, was cut by the Rielly gang on C. & H. Mohr's limit, one mile back of the famous Oiseaux Rock, so well known to excursionists.

The same gang—John Rielly, Maurice Rielly, Robert Rielly, and John Bradley, respectively, made ninety-eight pieces in one week, including this large piece.

This country has not been culled by other lumbermen, owing to the great difficulty experienced in getting timber on the ice, as it is mountainous and rocky.

The Messrs. Mohr are getting out some splendid logs and timber. The logs will average 18 inches, while the timber will go 80 feet, clean and free from bad knots, stakes, or anything that has a tendency to injure merchantable timber.

Mr. Mohr's agent having great practical experience in lumbering operations, enables him to overcome those difficulties that former lumbermen experienced here in getting timber to market. No snow here of any consequence, but at present indicates a thaw.—*Free Press.*

MASTERS AND SERVANTS.

To the Editor of the Canada Lumberman:

DEAR SIR,—I see by the last issue of the CANADA LUMBERMAN that the lumbermen of Canada are circulating a Petition to the Minister of Justice, asking for an amendment to the Act, 40 Vic. Chap. 35, respecting Masters and Servants. This Act was passed for the purpose of remedying the evil that it was alleged existed, whereby persons under contracts of service were liable to a quasi criminal prosecution for non-performance of the contract, and it was deemed advisable that such contracts should be placed on the same basis as other civil contracts, the remedy for breach of which, except in the cases named in the Act, should only be such as applied to the ordinary civil contract, on a failure to perform the same. This Act has been found to be very injurious to persons engaged in the manufacture of saw logs and square timber throughout the Dominion in that there is no remedy in such cases as the following, which are occurring every day with the lumbermen. It is well known that the great bulk of the logs and timber annually taken out is manufactured by gangs of men who for years have been in the habit of hiring themselves to the lumbermen at their own homes in the Province of Quebec, in the autumn of each year, and agreeing to go to the point at which the work is to be done, and remain for the full season. In almost all cases these men have to get an advance of wages to leave with their families or boarding-house keepers, and have to be conveyed at expenses of railway fare, food, and in some cases clothing, to enable them to go into the woods to do the work for which they are engaged. These men are generally of an improvident class, and are totally without means. The employer at great expense brings these men to the point at which they are to perform the contract, and after a time, but before the period for which they have hired expires, some offer is made, by a rival lumberman, of a higher rate of wages, if the parties will quit the employment of the men who brought them from Quebec, and go into the employ of the person making them the offer. It will be apparent that such a person, having paid nothing to bring the men from Quebec, can afford to pay a higher rate of wages for the remaining portion of the season. In case the men, or any considerable number of them, leave the person who hired them in Quebec and brought them to the point at which the work is to be performed, such person must suffer serious loss. He loses what he has advanced to, or paid for, the men, and also loses, by not being able to get out the logs and timber necessary to perform contracts he may have entered into. If he refuses to pay the men any arrears of wages, they go before some country Justice of the Peace and lay a complaint for arrears of wages, and most of these justices side with the men, particularly as unless they give judgment against the employer, the chance of the justice and constable getting their fees are remote. The lumbermen of the Province of Quebec felt the grievance some time ago, and petitioned the Minister of Justice on the subject, and he replied that the matter was one within the jurisdiction of the Provincial Legislature, and that the proper place to apply was to the Premier of the Province within which the contract was to be performed. The lumbermen throughout the Dominion feel that they should have some protection, and it appears to me the proper place to seek the remedy is from the Dominion Parliament. At any rate the law in the Provinces should be uniform. The Legislature of Quebec, Chap. 15 of 45 Vic., passed an Act to remedy the evil complained of, and for the relief of which the lumbermen by their petition pray. If the Legislature of Quebec had power to pass such an Act, as it has done, I cannot see how the Dominion Parliament had power to pass the Act 40 Vic. Chap. 35. It seems an absurdity that the Dominion Parliament should pass a law repealing a statute in force in two Provinces of the Dominion, and that the Legislature of one of the Provinces should be able and competent immediately thereafter to pass a law re-enacting in that Province the law repealed by the higher Parliament. I send you a copy of the petition and of a clause suggested to be added to the Act now in force, and would further refer to the "Seaman's Act," by which penalties are enforced against seamen who break their contracts of service. There is no reason, to my mind, why lumbermen, who refuse and neglect to perform such contracts, should not be under similar penalties imposed on seamen who quit service before the expiration of the period for which they were hired.

I am your obt. servt.

Peterborough, March 21, 1882. H.

POLE ROADS.

The following letter appears in the Toronto *Mail*:—

SIR,—In the *Globe* of the 11th is an article claiming that pole roads are the best suited to use in carrying logs from the woods to rivers and mills. After a thorough trial I have found the three foot tract, with stringers hewed on two sides to six inches thick, with either wooden rail two by four or light iron rail, the cheapest and best. Pole roads cost more to grade, and are always horse-killers. In heavy down grades with iron rail, I will guarantee to run cars with from fifteen hundred to three thousand feet of logs securely, and that around curves, and for branch roads, corners can be turned shorter with tramroads than with poleroads. In building tramroads hardly any grading is necessary, the stumps only being cut low or dug out, and dirt and wood, with dirt on top to cover the wood, in holes. In Michigan, where trams and poleroads have both been tried, the tramroad is retained and the poleroad discarded. I have used both horses and an engine costing three thousand dollars, on tramroads. If any lumberman in Canada wants to write me you are at liberty to give him my address.

Yours, etc.,

SENEX.

Chicago, Ill., March 18, 1882.

Its Work in Strathroy.

It often happens that the opinion of an experienced man, an expert, if we so call him, conveys greater force than an aggregation of outside, uneducated testimony. And then, too, personal experience or observation is so much more convincing than mere assertion. Trained to habits of analysis and keenest accuracy, and and from the very nature of their daily occupation, given to the most incisive criticism of anything of a proprietary nature, chemists, as a class, hesitate very long before endorsing anything of a remedial nature whose virtues have been announced through the public press. St. Jacobs Oil, however, is so universally successful and so unvaryingly accomplishes all that it promises, that the able chemist, W. J. Dyas, Esq., of Medical Hall, Strathroy, Ont., sends, with his friendly recommendation, the following from David Harrison, Esq., 9th Con., Township of Caradoc:—Having suffered with inflammatory rheumatism since last July, and hearing of St. Jacobs Oil, I sent for a bottle of the article on the 15th of October. At that time I was confined to the house, and could not possibly get out of bed without assistance. After four applications of the Oil the pain ceased entirely, and I was able to go about Strathroy in less than a week. I cannot give too much praise to St. Jacobs Oil for what it has done for me, and I believe it to be the most reliable remedy in rheumatism. Its wonderful efficacy should be brought to the knowledge of everybody.

No article ever attained such unbounded popularity in so short a time as Burdock Blood Bitters, and that too during the existence of countless numbers of widely advertised bitters and blood purifiers. It is evident that this medicine begins it work at once, and leaves no disirable effect unattained.

THE CAUSES OF COLDS are getting overheated in hot rooms or crowded assemblies, sitting in a draught, or cooling too rapidly after exercise, muffling up warm and changing to lighter wrappings, cold and damp feet. No matter what is the cause Hagyard's Pectoral Balsam is the cure for all throat and lung disease that induce consumption.

HAGYARD'S YELLOW OIL will be found invaluable for all purposes of a family liniment. Immediate relief will follow its use in all cases of pain in the stomach, bowels or side; rheumatism, colic, colds, sprains and bruises. For internal and external use. It has no equal in the world for what it is recommended. For sale by all dealers at 25c. per bottle.

FOR LUMBERMEN!

Poleroad Tramway Cars

Will Carry 2,000 Feet of Hardwood Lumber per Load

Drawn with one span of horses, either summer or winter, on Round Pole Roads, which are cheap and speedily built.

The woodwork of the Car can be built by any handy man in a couple of days. The undersigned supply the ironwork complete, including bolts and washers and a diagram of car.

The wheels are adjustable on its axles to accommodate itself to any bend in the pole. The weight of ironwork is 2,250 lbs. Price on application to

C. NORSWORTHY & Co.,

ST. THOMAS, Ont.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills.

17tf

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SPRUCE, PINE AND HEMLOCK SHINGLES

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SOLE PROPRIETORS OF THE

FAMOUS INTERNATIONAL

BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel.
It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.
It is perfectly harmless to Iron, and emits a clear pure Steam.
In ordering, mention the CANADA LUMBERMAN. 1L19

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LIGHTNING CANT-DOG

STEEL RIM,

The Best Cant-Dog in the World.

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MANUFACTURER OF

The Patent Lever Feed Shingle, Box Board & Heading Machine

(Always takes First Prize.)

Rotary Saw Mills

IN FOUR SIZES, and other

MACHINERY for SAW and GRIST MILLS.

SEND FOR CIRCULAR.

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1L29 PRINCE EDWARD ISLAND

MACK'S MAGNETIC MEDICINE.

Brain and Nerve Food

Is a Sure, Prompt and Effectual Remedy for *Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Superma torrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs.* The experience of thousands proves it an INVALUABLE REMEDY. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is *the cheapest and best.*

☞ Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at 50 cts, per box, or 12 for $5, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont.

Sold by all Druggists in Canada.

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MANUFACTURERS OF

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NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

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J. F. LAWTON

Alexandria Saw Works

SAINT JOHN, N.B.

Saws of all kinds manufactured from the BEST CAST STEEL that can be procured in any Market.

EVERY SAW WARRANTED.

SAWS REPAIRED in the best manner and on Short Notice.

Send Address for Price List, Terms, &c.

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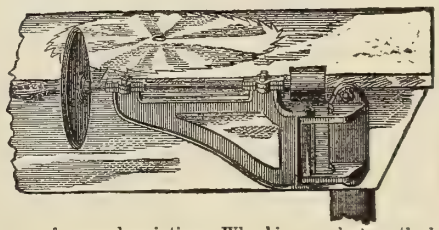

To MILLMEN!

HODGSON'S

Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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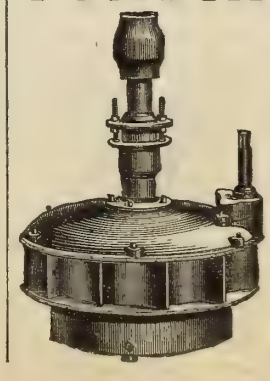
TURBINE WATER WHEELS



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Mill Machinery,

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HEMLOCK TO THE FORE.

Hemlock is fast attaining prominence as one of the most valuable among the soft woods. Its adaption to numerous uses is being more fully recognized, and this once despised wood is coming prominently to the fore as one of the most useful in the catalogue. The memory of the writer carries him back to the time, not very many years, either, in the vista of the past, when in the purchase of lands for lumbering purposes in the Saginaw valley, hemlock was left entirely out of the calculation, and thousands of acres containing vast quantities of hemlock have been allowed to revert to the state after the same had been denuded of the pine, because the hemlock was considered practically worthless except for the bark, and that could not be utilized because of the lack of transportation. These hemlock lands loomed slightly into prominence a few years since at the time of the hemlock extract boom, when several extract factories were established in the state, but the "great expectations" of the stockholders in hemlock extract bonanzas appear to have vanished into thin air or in a fruitless search for profits which their projectors had promised. Up to within a few years hemlock was considered worthless, except for fencing, joists, or for some of the purposes for which rough, coarse lumber was demanded. But as pine has advanced in price and is growing scarcer, necessity has demonstrated that hemlock is especially adapted, not only for coarser work, but also for inside finishing, and is being utilized in its natural state—being found capable of extraordinarily fine polish—for such purposes, in some very expensive structures. As an illustration we might cite a church in a neighbouring city, finished principally in hemlock in oil, in which is displayed some of the most beautiful specimens of natural graining, in the panel work, which can possibly be produced. It has been ascertained that hemlock is adapted for almost any of the uses to which the soft class of woods has heretofore been applied. The popular favor with which it is being received has resulted in rapidly enhancing the price of the lumber, as well as the lands on which the timber is located, and hemlock stumpage has appreciated in value to such an extent that in some sections it is ruling higher than that received for pine land stumpage a few years ago. This may have been partially induced by the speculative mania which has lately set in for the possession of timbered lands, but not wholly so; and because of the utility of the lumber for almost every conceivable purpose, it is safe to predict that hemlock will maintain a much higher figure in the future, and be received with much greater favor than in the past, and those who through foresight, or inability to dispose of them, have retained possession of these lands, will find they have struck a bonanza.—*Lumberman's Gazette.*

CONSTITUENCY OF WOOD.

All woods heated away from the air yield watery vapor chiefly, leaving nearly pure charcoal, which, when burned, leaves more or less mineral matter as ashes. Of green wood from one-third to one-half or more of its weight is water, the conditions partly depending upon the time of cutting. A gentleman made experiments on a basis of 100 pounds, and found they contained water as follows :—

	Cut in Jan.	*Cut in April.*
Ash, pounds water	29	38
Sycamore	33	40
White Pine	52	61

All kinds of wood cut in January contain from 15 to 25 per cent. less water than after the sap is in motion in April, and considerably earlier in the Southern States. As wood seasons naturally in the air, it loses from one-sixth to one-third its weight of water, but still contains from one-seventh to one-fourth its weight of moisture. A considerable part of the latter may be expelled by kiln-drying, and most of it if the kiln heat be raised to 212°. Some careful tests made showed that five cords of beech and maple just cut weighed as much as eight cords of the same wood when thoroughly air-seasoned. This teaches us a practical lesson; that is to haul and handle green wood requires a very large waste of strength. In handling five cords of green beech wood, for example, we have loaded, hauled, and unloaded three or more tons of useless water, which a few months' seasoning would have removed. A cord of wood contains 128 cubic feet as it lies piled up. But allowing for the interstices in fairly piled wood, we may reckon a cord to actually contain about seventy-two cubic feet of solid wood. Thoroughly dry wood weighs about as follows, per cubic foot and cord :—

	One c. foot.	*One Cord.*
Hickory, pounds	62	4,464
White oak	53	3,816
White ash	49	3,528
Red oak	45½	3,276
White beech	45	2,240
Apple tree	43	3,096
Black birch	43	3,096
Black walnut	42½	3,060
Hard maple	40	2,880
Soft maple	37	2,664
Wild cherry	37	2,664
White elm	30½	2,628
Butternut	35½	2,556
Red cedar	35	2,520
Yellow pine	34	2,447
White birch	33	2,376
Chestnut	32	2,304
White Pine	26	1,872

If the wood is to be used for steam-generating purposes, the relative values per cord, of various seasoned woods, taking into account weights, heating power, etc., and valuing hickory, as a basis, at $5 per cord, we reach the following results :—

Hickory	$5 00
White oak	4 05
White ash	3 85
Apple	3 50
Red oak	4 45
White beech	3 25
Black walnut	3 25
Black birch	3 15
Hard maple	3 00
White elm	2 90
Red cedar	2 08
Wild cherry	2 75
Soft maple	2 70
Yellow pine	2 70
Chestnut	2 60
Butternut	2 55
White birch	2 40
White pine	2 10

We find no record of careful experiments to test the relative value of cottonwood and rosewood or linden. The hickory named above is what is known as the shellbark hickory (*Carya alba*). The pignut hickory (*Carya porcina*) is of nearly equal value. The western hickory (*Carya sulcata*) weighs about 25 per cent. less than the shellbark, and its relative value per cord is estimated at $4.05, or the same as white oak.—*Northwestern Lumberman.*

SOUTHERN PINE FORESTS.

The St. Paul *Pioneer Press* learns through the parties chiefly interested, of quite an important transaction in Florida pine, which will be of interest to people in the northern lumbering regions. In 1872, A. J. Floyd, a Kentuckian, once wealthy but impoverished by the war, came into this country on a prospecting tour among the pine lands, of which there were many thousand acres that had reverted to the state through default in the payment of taxes. He was without means of his own, but had interested in his prospects Mr. W. H. Polleys, of Wisconsin, an old Black river lumberman of considerable wealth, who had agreed to back him to a reasonable extent if satisfactory opportunities for investments offered. Mr. Floyd was well posted on pine, and after examining the country thoroughly, located 64,000 acres in a nearly or quite solid mass, lying on waters flowing into the gulf and splendidly situated for operations and marketing. Mr. Floyd with his family took up his residence upon the tract, and has lived there in hermit-like seclusion for ten years, selling each year a few logs which found their way to the navy yard at Penascola, and furnished sufficient means for the payment of taxes and support of his family. His confidence in the value of his investment never weakened, and his partner, Mr. Polleys, was equally hopeful, although the financial panic of 1873, following right upon the heels of a venture which tied up for some years considerable of his available cash capital, seriously crippled him, and probably caused him some regrets that he had hampered a profitable business with uncertain speculations of this character. However that may be, his judgment has been vindicated. The land was well selected and its value has been recognized during the past year by capitalists from the north, who have been seeking investments in the gulf states. Offers have been made and refused. Recently an English firm, Sanders & Rankins, made an offer of $5 per acre for the entire tract. This was refused. They then offered $5 per acre for an undivided one-half of the 64,000 acres, and this was accepted. I understand the transfer has been made, and the purchase money, $160,000 in cash, placed to the credit of Messrs. Polleys & Floyd. They expect to hold the remaining 32,000 acres, considering it the most profitable investment they can make. Mr. Floyd, who was here last week, left to-day for Alabama, where he will reinvest in pine lands. This trade has opened the eyes of northerners wintering here, and although to-day there are tracts of pine in the gulf states that can be had by clearing up taxes, for a nominal sum, it seems likely that within a year the best located portions will have passed into the hands of the numerous capitalists now looking for investments.—*Lumberman's Gazette.*

EXPORT OF HEMLOCK BARK.

The St. John, N.B., *Daily News*, of March 6th, says :—The discussion or conversation that took place last week in the Legislative Council in connection with Mr. Jones' motion for papers relative to the hemlock land sale, showed that the weight of opinion in that body was opposed to the course pursued by the Local Government on that matter. In the course of that discussion, two points were brought out very clearly, of which one was that the policy of stimulating the destruction of our hemlock forests for the maintenance of a great export trade in hemlock bark extract, was a most wasteful and short-sighted one, and the other of which was, that whether that policy was wise or no the land disposed of had been sold at a price far below its value.

There seems to be no doubt as to the soundness of these conclusions. It is plain to every intelligent observer that the tanning industry is one which the world can never dispense with. Its importance can never be lessened, but rather increased age after age. But the materials needed for use in the tanning process naturally become scarcer and scarcer. The trees whose bark furnishes the best tanning material grow slowly, and are destroyed quickly. The hemlock is one of the best of the tanning-bark bearing trees. It has been plentiful in this Province. But it is being rapidly destroyed, and as it grows scarcer it becomes more and more valuable. It would pay the Province well to guard it carefully. The rapid destruction of tanning-bark bearing trees elsewhere will surely enhance the value of such trees in New Brunswick. There is not the slightest probability that the use of tanning bark will be superseded by any discovery or device whatever. Where it cannot be obtained in sufficient quantity, inferior tanning will have to be depended upon. Where it can be got it will always command a good price. But anyone can understand that as the supply of such bark is limited, the country would profit far more in the long run from its use in tanning factories at home, than by its exportation in any shape for use in tanning factories abroad.

The exportation, however, may be found difficult to stop altogether; but henceforward the Government should be careful to part with no hemlock lands in large quantities, and with none in any quantity below their real value. The Government should be made to understand that the hemlock forests of the Province are sources of wealth to be jealously guarded and husbanded for the general good.

POLEROADS IN WASHINGTON.

The lumbermen of the Puget Sound district have adopted the poleroad system, for years so successfully operated in Michigan. The Blackman Brothers, of Snohomis City, have invented an improvement on car trucks for these railways, and the invention seems to promise good results. The renouncing of primitive methods for advanced ones adequate for the demands of the lumber business is a question of the times. A wooden track with these improved cars can be used by the lumbermen in places and upon grades where an iron track could not be used, for the reason that an iron track can only be used on comparatively light grades, whereas the wooden track has been successfully used with these trucks where the grade was one foot to every nine. All such improvements are hence important, and when the idea is perfected it will work a revolution in the methods of hauling logs from the woods to the booms or navigable water.—*Northwestern Lumberman.*

BURNING UNDERBRUSH.

Mr. Thos. Meehan, of Philadelphia, who is an authority on matters relating to forestry, endorses the proposition of Joaquin Miller to burn the brushwood and rubbish in the forests every year, to prevent extensive conflagrations. In the *Gardeners' Monthly* he says :—

"If the undergrowth is kept down and dead matter not allowed to accumulate, there will be no fire to hurt the living trees. We know of a piece of wood that is burned under every year by sparks from the Reading Railroad Company's locomotives, but the standing timber has never been injured. It will not cost a thousandth part as much to clear out all the brushwood in the United States forests as we lose in one year by forest fires, and the true way to preserve our forests must start from just here. At any rate this idea removes the great objection to forest planting, that it may get burned. If rank vegetation is kept down for a few years during the growth of the forest, it will by its own shade keep down the growth thereafter."

The Literature of Forestry.

The large place which forestry holds in European countries is strikingly shown to the American mind by the number of publications on the subject issued by the European press Spain, from which we should not expect a voluminous literature of the sort, furnishes us a *catalogue raisonne* of 1,126 books, MSS., etc., in Spanish, on subjects connected with forest science. In Schmidt's Catalogue, published in Prague in 1876, are given the titles of German works on this subject published from 1870 to 1875 inclusive, which amount to 650. A gentleman to whom application was made from the Cape, South Africa, for information in regard to suitable works on forestry in the German language, reported that they might be reckoned by cartloads. Publications on this subject are also abundant in the French and other languages of Europe.—*N. H. Egleston.*

The Question Settled.

There's no use in arguing the question of the potency of some substances for especial service in emergencies. They will do all they promise, and more, if judiciously used. The following from Mr. P. Murphy, of No. 1 Fire Station, Ottawa, bears upon the point stated above. Mr. Murphy says :—I had occasion to use St. Jacobs Oil recently, and must say that it is the best Liniment I ever saw used. I caught cold from getting wet at a fire, and it settled in my shoulder and down my back to my hip. I suffered a great deal from the pain. I was advised to try St. Jacobs Oil. I did so, and after the fourth application I was entirely free from pain. I cannot speak too highly of it, and advise others to use it.

Planting Trees.

Dr. J. M. Anders, in the *American Naturalist*, says :—"The experiment has been tried extensively in France of planting trees in belts 100 metres apart, and with marked benefit to the climate, and there are some good reasons for believing that a similar experiment in various places in our own country would prove equally advantageous. It has been observed many times that fruit grown in the city surpasses in quality and size that grown in the country, and this is ascribable to the more effectual shelter in the former place."

At Shell Lake, Minn., a boom will be put in that will hold 40,000,000 feet of logs. One of the mills at this point will put in a track and employ a locomotive to bring logs to the lake to offset the shortage in the winter's cut. The distance is from four to six miles.

Saved from the Poorhouse.

For years David Allingsworth suffered with rheumatism, and notwithstanding the best medical attendance, could not find relief. He came to the Sciota County Poorhouse, and had to be carried into and out of bed on account of his helpless condition. After the failure of all the remedies which had been applied, the directors of the Poorhouse resolved to use the celebrated German Remedy, St. Jacobs Oil, and this was a fortunate resolution; for, with the trial of one bottle, the patient was already better, and when four bottles had been used upon him he could again walk about without the use of a cane. The facts, as above stated, will be verified by the editor of the Portsmouth (Ohio) *Correspondent.*

Chips.

A PINE tree was recently cut on Beaver creek, Peshtigo, Wis., district, that made four 16-foot logs, 48, 46, 44, and 42 inches in diameter, and altogether scaling 5,744 feet.

THE Lachute *Watchman* says that Messrs. A. & G. Holland, of Ottawa, are constructing a pulp factory at Buckingham, and intend having it completed early in the spring.

WHILE engaged in digging a well recently at Two Rivers, Wis., some men found a piece of hemlock wood 86 feet below the surface of the earth, and in a good state of preservation.

ON the Elk river, in Wisconsin, Ed. Butler banked what was regarded the biggest log of the season a few days since. It measured 20 feet long and 44 inches through at the small end.

THE cordage to be used by the St. Croix, Wis., Boom Company for the ensuing season has been contracted for, and amounts to 100 tons, costing in the aggregate from $24,000 to $26,000.

THE ancient temples of Egypt are believed to contain the oldest timber in the world, in the shape of dowel pins which are incorporated with stone work, known to be not less than 4,000 years old. These dowel pins, according to the appearance they present, are thought to have been made from the tamarisk, or shittim wood, in ancient times a sacred tree in Egypt.

THE Chatham, N. B., *World* says that at Barnaby River there are about 125 men engaged at the lumber business, as follows:—Mr. O'Brien has 30 men in two camps; Mr. M. Gratton has 45 men in two camps; Mr. T. Gill has 25 men in one camp; Mr. McSweeney has 15 men in one camp, and Mr. Murphy has ten men in one. The total number of camps is six, and the lumber expected to be cut is about 5,000,000 feet.

THIS winter there are 16 camps, containing 150 men, lumbering at Bay du Vin. Mr. D. Buckley has six camps and employs 60 men; Mr. M. Savoy has five camps and employs 40 men; Mr. Charles Rainsburrow has two camps and employs 15 men; Mr. John McDonald has one camp, containing 15 men; Mr. J. Hanley has a camp containing ten men; and Mr. Lynch has a camp containing ten men. The estimated lumber expected to be cut is seven or eight million feet.—*Chatham, N.B., World.*

THE Quebec *Chronicle* says that a large quantity of square birch timber is now being brought to town over the Lake St. John Railway. On Saturday, March 4, two trains of thirteen cars of this timber arrived at the Palais Depot for different shippers, and has been unloaded at Flood's, Clint's, Commissioners' Wharf, and other coves. The bulk of the timber comes from St. Raymond, where there is keen competition for it, as many as six or seven Quebec buyers having been operating there this winter. A considerable quantity also comes from Lake St. Joseph and St. Gabriel Stations.

A NUMBER of lumbermen of Alpena have been or are at present, making visits to the southern pineries. A. W. Comstock, of the firm of Bewick, Comstock & Co., returned to the city on the 3rd from a southern trip, and appears so well pleased with what he saw of the southern pine woods that it is the intention of the firm to purchase some 40,000 acres of pine woods in that part of the country. There seems to be an immense sale of southern pine lands, as will readily be seen by the fact that the officials whose duty it is to record deeds are about one month behind hand with their work.—*Cor. Free Press.*

THE Minneapolis *Lumberman* says the logging season may now be considered closed in the northwest. The cut on the upper Mississippi, Rum, Snake, St. Croix, Menominee, Chippewa, Wisconsin and Black rivers, as well as the railway mills taken as a whole will reach about 66 per cent. of the intended cut. The extreme upper Mississippi loggers have done the best. The Black river has done the poorest. It is also to be kept in mind that there is a very much larger supply of old logs on hand than ever was known before. We think it a safe estimate to put down the logs in booms from St. Louis north at 500,000,000 feet, which will go far toward making up the shortage.

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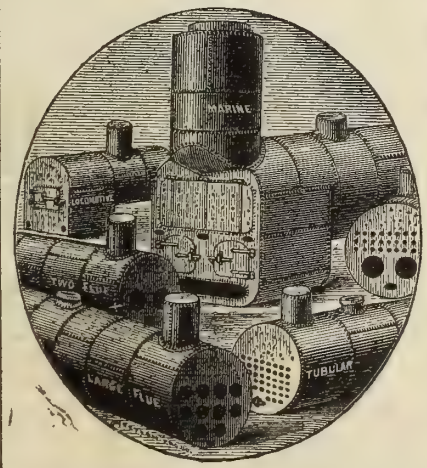

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Market Reports.

MONTREAL.

From Our Own Correspondent.

MARCH 24th.—The action of the authorities in charging over weight of from $2 to $5 on lumber brought by the Q. M. & O. Railway, has for the time being put a stop to importations by that line, and no more will likely be brought this spring, merchants preferring now to wait the opening of navigation; this, however will cause no inconvenience here, as stocks of most kinds of lumber are ample to meet the demand, which has been fair during the past two weeks. Prices are firm but not quotably changed. We continue to quote :—

Pine, 1st quality, ℔ M	$35 00@40 00
Pine, 2nd " ℔ M	18 00@24 00
Pine, shipping culls, ℔ M	14 00@15 00
Pine, cull deals, ℔ M	8 00@12 00
Pine, mill culls, ℔ M	5 00@ 8 00
Spruce, ℔ M	8 00@10 00
Hemlock, ℔ M	8 00@10 00
Ash, run of log culls out, ℔ M	16 00@18 00
Bass, " " ℔ M	16 00@17 00
Oak, ℔ M	35 00@45 00
Birch, ℔ M	17 00@20 00
Hard Maple, ℔ M	18 00@25 00
Lath, ℔ M	1 50@ 0 00
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 00@ 0 00

London mail advices say that there is special dullness in the lumber market, buyers and sellers being wide apart in their views. Stocks are not much behind that of last year, and during the week ending first inst., 7 timber laden vessels were reported either lost or disabled. From Liverpool we learn that a better business has been done, but prices rule low.

CORDWOOD.—There has been quite an excitement among cordwood dealers during the last week owing to the new regulation which came into force in the rates of freight charged on wood by the Q. M. O. & O. Railway, which used to be paid for at the rate of $1.50 a cord from the Ottawa District, but is now charged for by weight, which will make a difference of about $7.50 per car load from that district, and $6.25 from St. Jerome. This has stopped the demand from the depot, and dealers are anxiously looking forward to the opening of navigation, when they will be enabled to get their supplies by the canal, and in the meantime they have petitioned the Government to restore the former rate of $1.50. The public, or rather consumers, consider they have been rather hardly dealt with in this matter, as one of the principal reasons for the city giving one million dollars towards the building of the railway was that fuel could be brought from the back woods much more cheaply than formerly. Owing to considerable stocks on hand no advance has yet taken place in quotations, but on all coming under the new tariff, it is fully expected that a rise of 50 cents per cord will be established. There has been a fairly active demand lately for wood, which we still quote at the railway depot, ex cartage :—

Long Maple	$6 00
Short "	5 50
Long Birch	5 50
Short "	5 00
Long Beech	5 00
Short "	4 50
Long Tamarack	4 50
Short "	4 00

TORONTO.

From our own Correspondent.

MARCH 22nd.—Active preparations are now being made for the opening of navigation, and several vessels are now loading ready for a start as soon as the month closes. The *Marquis, John Bently* and *Annie Mulvey*, three vessels owned by Capt. Hall, of this city, will all take cedar ties the first trip, and are now on the way loading; the total capacity of the three above named crafts is 1,250,000 ft. Rates to Oswego will open at $1.25 per M., and strong efforts will be made to ship all dry lumber away as fast as vessels can be procured to carry it, but the want of proper dock room on which to pile lumber pending the arrival of vessels, is seriously felt, car lots in many cases having to be unloaded and again reloaded to shunt to the vessel's rail, or else the cars are kept under board, thereby causing a scarcity of cars during the busiest portion of the shipping season; the N. & N. W. R. Co. are likely to be taxed to their utmost to supply shippers with sufficient cars, as the square timber will have to come here at the same time as early shipments of sawn lumber, whereas in former years the bulk of the hewn timber for the English market got in port before the opening of navigation, and although the company have placed their booms in position, not a stick of timber has yet arrived, so that when the limited water front owned by the R. R. Co. is partly taken up by the timbermen, it makes shipping by vessels slow and vexatious.

The mild and rainy weather of the past few weeks has operated somewhat against the brisk sales from the yards, as the new streets, on which most of the building operations are in progress, have become nearly impassable for laden teams, yet so far as my observation goes, most of the retail yards have had all they could do to furnish orders, and you will observe that bill stuff has advanced $1 per M., and will, I think, remain at that figure during the season. Good cut up 1½ in. and 2 in. dry plank is in demand, but hard to obtain. Considerable dressed flooring, sheathing, and clap-boarding is now being shipped from here by rail to Manitoba, and no doubt but that a large quantity of such lumber will be shipped there during this coming summer, which will tend still more to create a scarcity of dry stuff here on the local market.

In continuing my observations anent our woodworking establishments here, I would next call your attention to the factory owned by J. B. Smith, on the Esplanade west of Yonge street. All the appliances for the cheapening of labour are to be found in this building, and thoroughly experienced hands in charge, and as a large retail lumber business is run in connection with the factory, quite an extensive business is done, prepared lumber being sent as far east as Montreal.

A little farther west and situated on the corner of Lorne street and the Esplanade, stands the extensive sawing and planing mills, owned by Messrs. McCracken & Oliver. This firm keeps logs of all lengths on hand, so that any desired piece of timber can be turned from their saw carriage at short notice, and all fancy woods from their own extensive covered yard, adjoining the mill, can be immediately manipulated into any desired shape required by their customers.

The next in order are the large shops and machinery owned by Bryce Bros., situated at the foot of Frederick street. This factory was formerly operated by Joseph Gearing, who skipped out between the two lights to the land of the stars and stripes, leaving a host of creditors to mourn over their losses, but the old stand has now passed into energetic hands, and will be doubtless run for all it is worth, and as the firm has a large stock of lumber at all times on hand at their retail premises near by, their facilities for turning out good work, and plenty of it, are unsurpassed.

In my last letter where it reads "As it is well understood that the N. R. Co. receives no benefit for the charge levied for excess weight," it should read the "M. R. Co.," as all Midland Railway cars pass over the G. T. R. *en route* to this city.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" " stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	16 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	15 00
1½ " " dressed	26 00
1½ " " undressed	15 00
1 " " dressed	20 00
1 " " undressed	16 00
⅜ Beaded Sheeting, dressed	20 00
Clapboarding, dressed	12 50
XXX sawn shingles, ℔ M	2 50@3 00
XX sawn shingles	2 75
Sawn Lath	2 50

LONDON, ONT.

From Our Own Correspondent.

MARCH 24th.—The substance of my last letter is fully borne out by the feeling which prevails to-day throughout the lumbering interest of this city. The inevitable result of an unseasonable winter must be higher prices, and there is a greater firmness displayed to-day than perhaps at any time during the last three months. Prices, however, cannot be said to be higher, but in no cases do we hear of any of the merchants making even the slightest concessions in consideration of that tempting "feeler" *cash*. Prospects for this spring are looking bright, and nearly all the lumber merchants have placed their contracts for supplies. One of our largest firms have placed their orders for about six million feet of lumber alone.

It is feared that the great Northwest boom will take away many of our carpenters and builders as soon as strong evidences of spring assert themselves, and that labor will be scarce and consequently will cost more; this, together with the anticipated advance in lumber, will add a considerable percentage to the cost of building.

An item in the London *Free Press*, of Thursday, says :—"A deputation from Chatham, Ont., will wait on the Minister of Finance tomorrow to urge the imposition of an export duty on elm logs shipped to the United States. The deputation consists of manufacturers of elm staves, who used to do a large business to the United States, but a duty of 25 per cent. having been imposed on the staves by the United States Government, and the logs being admitted free, the manufacture of the staves have been thrown into the hands of American manufacturers. The Canadian manufacturers think that by imposing an export duty on the logs they can recover most of their trade." I do not know how this will result, inasmuch as logs can only be classified as "raw material," and the imposition of an export duty might recoil on the heads of the projectors.

After the many promises I have made to furnish you with a data of the business done here for the past year, I cannot with consistency "hang fire" any longer, and I now herein give you an authentic statement of what has been done; and allow me here to thank the merchants of this city who received your correspondent so courteously, and so willingly furnished the information desired.

STATEMENT OF BUSINESS DONE FOR YEAR 1881.

Lumber (all grades) ft	13,740,390
Pieces Lath	6,199,190
Shingles	8,753,000

The quotations are at the present time about the same as last and you will be safe in giving them at this date. They are as follows :—

QUOTATIONS.

Mill cull boards and scantling	$11 00
Shipping cull boards, promiscuous widths	12 00
" " 10 and 12 in. stocks	12 50
Common boards, promiscuous widths	14 00
Scantling and joist, up to 16 ft	15 00
" " " 18 ft	15 50
" " " 20 ft	16 50
" " " 22 ft	17 50
" " " 24 ft	19 00
Common stocks	15 00
Common 2 in. plank	14 00
Cutting up plank and boards	19 00
Sound dressing stocks	18 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	21 00
¼ " " " "	21 00
1 " " " "	21 00
XXX sawn shingles, ℔ M	3 00
Lath per 1000 feet	4 50@5 00

OTTAWA.

MARCH 23.—Extensive preparations are now being made by the lumbering firms here for the spring drive. All the men that can be engaged are being sent up the river. Agents complain of a scarcity of men, and wages are consequently high. From $25 to $30 per month are paid. As soon as operations in the shanties, which are, however, being pushed on vigorously, come to a stop, there will be, it is thought, lots of hands for the drive. Timber and logs will continue to be manufactured until the first week in May in the most of the shanties on the Upper Ottawa, and on the Kippewa in particular. There are a number of concerns already closed, however, for want of snow, among them Capt. Young's shanties on Bissett's Creek, and Campbell McDougall's. Quite a number of this season's logs will be left in the woods, as generally happens, owing to innumerable difficulties in having them conveyed to the main streams. Demand for logs at present is fair, and lumber quotations also remain steady, with an upward tendency. Mill culls bring $8 per thousand, and shipping culls from $12 to $13. In regard to the approaching season's trade, very fair quotations are confidently expected to prevail, and a good summer is anticipated. Stocks on hand are not very large, orders having been continually filled during the past winter by rail shipment. The mills here will begin as early as possible, about the 1st of May.

MIDLAND.

From our own Correspondent.

The prospects here are that a large cut of lumber will be made this present season. The several mill owners have made every effort to have their mills well stocked. The only question now will be the water supply for the drives. Dollar's mill be running to its full capacity; Chew Bros. have cut 4,000,000 feet of logs for their mill; the British Canadian Lumber and Timber Co. expect about from 33,000,000 to 36,000,000 feet of logs, and their new mill on Hugel Point here will be ready for cutting early in the season. J. A. Smith, of Port Hope, is engaged in taking out oak for car stuff, and is also dealing quite largely in ties, basswood and maple. He has shipped from this point to Niagara Falls sixteen carloads of poplar to be manufactured into paper. Tait's mill is now running daily, cutting oak for car stuff.

Property here is advancing rapidly; quite a boom in the market. A hotel stand sold for $2,500 nine months since and now $7,000 are refused, and a lot sold one year since for $400, while now $1,400 are refused. Lots are selling rapidly, and our village is making rapid progress.

QUEBEC.

It is reported that Messrs. Sharples & Co. and Messrs. Burstall & Co. have purchased this season's cut of Montmorenci pine deals at about $110 for firsts, $73.33 for seconds, and $36.66 for thirds. Messrs. R. R. Dobell & Co. are the largest holders of waney and square pine timber in this market. They have purchased very largely this season, and are said to have the control of 4,000,000 feet.

ST. JOHN, N. B.

From Our Own Correspondent.

MARCH 22nd.—There is very little to notice in connection with our wood trade since last report. The weather continues cold, and the roads are in a better condition for hauling than usual at this season of the year, enabling the lumbermen to continue their operations in some sections, compensating in a small measure for the disadvantages of the mild weather in the earlier part of the season.

Some of our city mills have commenced sawing, but as the available supply of logs is very light, sawing operations will be on a limited scale till after the opening of the river, which generally takes place between the 20th and the last of April.

FREIGHTS.

The demand for tonnage continues very light. In last report 60s. was quoted as the market rate; since that time two vessels have been placed at that figure, viz., *Herbert Beech*, 1,061, for Liverpool, and Kate Sancton, 677, for a direct port East Coast of Ireland. Quotations nominal, unchanged.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	2,420,000 Sup. feet.
" United States	2,266,000 "
" West Indies	594,000 "

The number of sugar box shooks shipped for Cuba is as follows :—

Sept. 1 to March 6	63,045
Since	6,595
Total	69,640

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Richard Hutchinson, 768, Penarth Roads, or E. C. Ireland.
Maria Aistrup, 339, Bristol Channel, or E. C. I.
Oliver Emery, 623, Bristol Channel, or E. C. I.
John Black, 545, W. C. England, E. C. I., or Glasgow.
Kate Sancton, 677, East Coast Ireland.
Herbert Beech, 1,061, Liverpool.
Our Annie, 364, discharging.
Milo, 684, W. C. England or E. C. I.
Bachelors, 655, ——
Brothers, 537, ——

CHICAGO.

MARCH 23.—The *Northwestern Lumberman* says that the moderate views as to values, held

this spring by Chicago dealers, is having a good effect on trade at this point. While other markets are bowling prices up the incline, values here are held with a steady hand at figures prevailing on January 1, with nobody favoring advanced rates. This is bringing a large amount of trade to this city that would otherwise go to other sources of supply.

As an indication of the state of trade, it is mentioned that one concern the past week received orders in one day to the amount of 1,200,000 feet. This day's work was, of course, exceptional, but it shows that lumber is moving on a large scale. The average sales of the same company have reached 4,000,000 feet a month since January 1, and it is not reputed to be the heaviest concern in the district either.

Receipts and shipments of lumber and shingles for the week ending March 23, 1882 :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882.....	5,552,000	1,048,000	39,162,000	11,075,000
1881.....	3,242,000	1,061,000	16,333,000	4,020,000

Receipts and shipments of lumber and shingles from January 1, to March 23, inclusive :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882...55,350,000		13,660,000	302,704,000	91,120,000
1881...41,781,000		13,407,000	151,812,000	70,272,000
Inc..13,569,000		253,000	150,892,000	20,848,000

STOCK ON HAND MARCH 1.	1882.	1881.	1880.
Lumber.....	378,558,184	398,800,030	338,996,421
Shingles....	162,302,900	166,010,000	152,072,000
Lath	33,426,283	41,784,270	37,132,219
Pickets.....	2,354,511	2,251,438	1,467,974
Cedar posts.....	112,088	177,304	207,362

ALBANY.

MARCH 23rd.—Quotations at the yards are as ollows :—

Pine, clear, ₱ M.....	$53 00@63 00
Pine, fourths.....	50 00@60 00
Pine, selects.....	45 00@55 00
Pine, good box.....	22 00@35 00
Pine, 10-in. plank, each....	00 38@00 44
Pine, 10-in. plank, culls, each.....	00 19@00 22
Pine boards, 10-in.....	00 26@00 28
Pine, 10-in. boards, culls.....	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M.....	25 00@30 00
Pine, 12-in. boards, 16 ft.....	25 00@30 00
Pine, 12-in. boards, 13 ft.....	26 00@28 00
Pine, 1¼ in. siding, select.....	38 00@40 00
Pine, 1¼-in. siding, common....	15 00@18 00
Pine, 1-in. siding, select.....	40 00@42 00
Pine, inch siding, common....	16 00@19 00
Spruce, boards, each.....	00 00@00 16
Spruce, plank, 1¼-in., each.....	00 00@00 20
Spruce, plank, 2-in., each.....	00 00@00 30
Spruce, wall strips, each.....	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each.....	00 00@00 31
Hemlock, joist, 2¼x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each.....	00 00@00 10
Ash, good, ₱ M.....	35 00@40 00
Ash, second quality, ₱ M.....	25 00@30 00
Cherry, good, ₱ M.....	60 00@70 00
Cherry, common, ₱ M...	25 00@35 00
Oak, good, ₱ M.....	38 00@43 00
Oak, second quality, ₱ M.....	20 00@25 00
Basswood, ₱ M.....	22 00@25 00
Hickory, ₱ M.....	36 00@40 00
Maple, Canada, ₱ M.....	26 00@30 00
Maple, American, per M.....	25 00@28 00
Chestnut, ₱ M.....	35 00@40 00
Shingles, shaved, pine, ₱ M.....	0 00@ 6 00
" 2nd quality.....	0 00@ 4 50
" extra, sawed, pine.....	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed.....	0 00@ 3 25
" cedar, XXX.....	0 00@ 4 00
" hemlock.....	0 00@ 2 25
Lath, hemlock, ₱ M.....	0 00@ 1 62
Lath, spruce, "	0 00@ 1 80
Lath, pine, "	0 00@ 2 70

OSWEGO, N.Y.

MARCH 23.—The following are the quotations :—

Three uppers.....	$42 00@45 00
Pickings.....	32 00@35 00
Fine, common	20 00@25 00
Common.....	14 00@18 00
Culls.....	13 00@15 00
Mill run lots.....	17 00@22 00
Sidings, selected, 1 inch.....	34 00@38 00
1¼ inch.....	34 00@38 00
Mill run, 1x10, 13 to 16 feet.....	17 00@21 00
selected.....	23 00@25 00
shippers.....	15 00@16 00
Culls, selected.....	22 00@30 00
Culls	10 00@13 00
1x6 selected for clapboards.....	25 00@40 00
Shingles, XXX, 18 inch, pine.....	3 75@ 4 00
XXX, 18 inch, cedar.....	3 00@ 3 25
Lath.....	1 40@ 1 60

BUFFALO.

We quote cargo lots:—

Uppers.....	$46 00@48 00
Common.....	18 00@19 00
Culls.....	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers.....	$40 00@45 00
Common.....	17 50@20 00
Culls.....	11 50@12 50

D. S. BRIGGS,
9 TORONTO STREET, TORONTO.
WHOLESALE DEALER IN
Clear, Pickings, Common and Hardwood Lumber, Lath, Shingles, &c.
BILL STUFF CUT TO ORDER. 1Ltf

A. L. UNDERWOOD
WHOLESALE DEALER IN
White Pine, Basswood & Hardwood,
82 King Street East,
TORONTO, ONT. 1Ltf

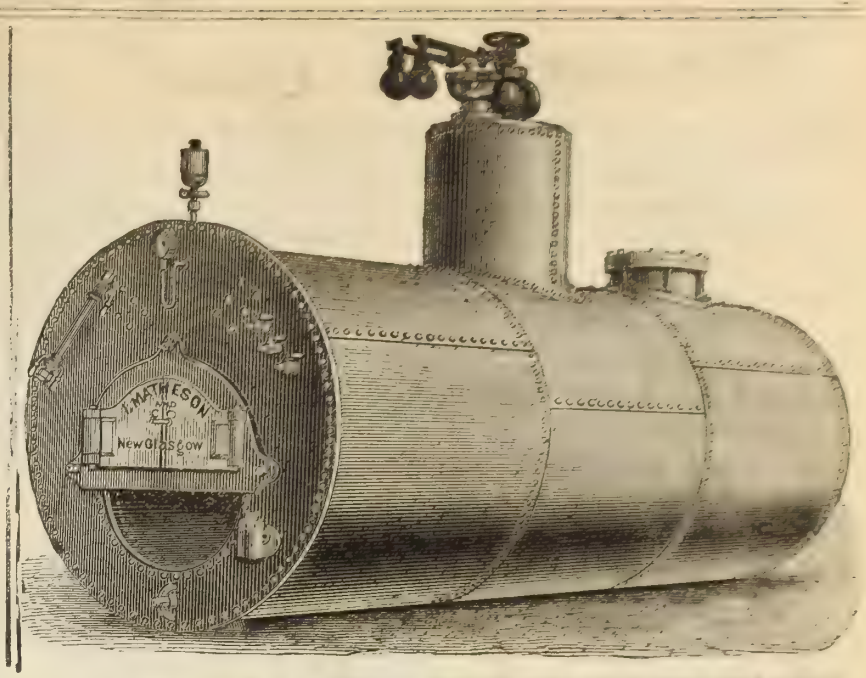
S. S. MUTTON & Co.,
Wholesale Lumber Dealers
TORONTO.
We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.
☞P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 1Ltf

CANADA TRUSS FACTORY
(ESTABLISHED 1856.)
F. GROSS,
Manufacturer of SURGICAL and ORTHOPŒDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description. 1L14
688 and 690 Craig Street, Montreal.

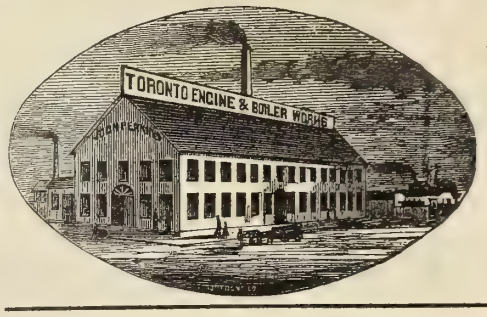
P. PAYETT'S NEW IMPROVED
Adjustable Saw Guide !
Can be adjusted without danger. You can take your saw off without taking the guide off the frame.
All kinds of Brass & Iron Casting
PLAINING and TURNING done with Despatch. For particulars address :
CRAIG & CAMERON,
PENETANGUISHENE. 1L12

NEW FOUNDRY FIRM.
McLean, Brayshaw & Co
Simcoe Street,
PETERBOROUGH.
CASTINGS of every description in Brass and Iron.
All sorts of MACHINERY for Saw and Grist Mills.
STEAM FEED for Circular Saws.
Also Saw Gummers, Cutters, Double Upset Swages, and all Saw Tools.
Send for Price List. L4

LEATHER BELTING.
Chipman, Renaud & Co.
MANUFACTURERS OF
LEATHER BELTING,
FIRE ENGINE HOSE
LACE LEATHER, &c.
124 & 126 Queen St.
MONTREAL



ACADIA FOUNDRY
I. MATHESON & Co ENGINEERS & BOILER MAKERS, NEW GLASGOW, N.S.
1L17



ALL KINDS OF
Machinery, Marine, Portable and Stationary Boilers.
Pump Boilers for Stationary Mills
153 & 155 Front Street, TORONTO.
J. PERKINS, PROPRIETOR 5L6

JONES & SON,
Wholesale Lumber & Timber Dealers
39 Broadway, NEW YORK.
Oak, Ash, Cherry, Black Walnut, Poplar, Butternut
And all other Kinds of HARDWOOD LUMBER.
White and Yellow Pine Lumber and Timber.
Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally. L7

MACHINE OILS, ETC.
McCOLL BROS. & Co.
TORONTO,
MANUFACTURERS and WHOLESALE DEALERS IN
Machine and Illuminating Oils
Four (4) Medals and Three (3) Diplomas awarded to them in 1881, by the Leading Exhibitions of the Dominion.
SEND FOR PRICES, ETC. 5L24

ROBERT W. LOWE,

AUCTIONEER AND COMMISSION MERCHANT

81 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. ☞No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

1L17 SAINT JOHN, NEW BRUNSWICK.

ROBIN & SADLER

594, 596, 598, St. Joseph St.

MONTREAL

Manufacturers of

LEATHER BELTING

Fire-Engine HOSE,

Lace Leather,

Mill Supplies, &c.

1L13

Wrought Iron Shanty Cook Stoves

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use.** These Stoves are made of **Heavy Sheet Iron,** the top and lining of the fire-box being of **Heauy Cast Metal** and all the connecting parts of substantial **Wrought Iron Work.** The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 24 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business. Very truly yours, GEO. HILLIARD, M.P.

EVERY STOVE GUARANTEED

All the necessary TINWARE and CUTLERY for Shanties supplied at the Lowest Prices. 1L7

ADAM HALL, Peterborough.

Northey's Steam Pump Works

BOILER FEED PUMPS, AIR AND CIRCULATING PUMPS, STEAM FIRE PUMPS, and WRECKING PUMPS.

MINING PUMPS, PUMPS SPECIALLY ADAPTED for OIL PIPE LINES, And CITY WATER WORKS.

No. 47 King William Street.

HAMILTON, ONTARIO.

SEND FOR CIRCULAR. 1L12

ESTABLISHED 1820.

EAGLE FOUNDRY!

GEORGE BRUSH

14 to 34 King and Queen Streets, MONTREAL,

MAKER OF

Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

AND AGENT FOR 1L20

"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

ABRAMS & KERR

MANUFACTURERS OF

Steam Engines, Mill Gearing, Rotary Mills, Shafting, Planers, Hangers, Pulleys, Variety Moulders.

SPECIAL MACHINERY MADE TO ORDER

Latest Improved Spool and Bobbin Machinery.

Every Variety of Heavy and Light Casting. 1L19

Foundry and Machine Shop on City Road,

ST. JOHN, NEW BRUNSWICK.

OAK HALL

Nos. 115, 117, 119, 121, King St. East, Toronto.

We are the most Extensive CLOTHIERS in Canada.

We carry a STOCK of FIFTY THOUSAND DOLLARS to choose from.

We watch the interest of our Customers. Our stock is FULL of the very best goods in Scotch, English and Canadian Tweeds.

We BUY and SELL for Cash, therefore it enables us to do business on very SMALL PROFITS.

NOTE THE PRICES.

We give a Good Tweed Suit for.....$6 00
We give a Good Tweed Pants for..... 1 50
We give a Good Overalls for 0 35

LUMBERMEN!

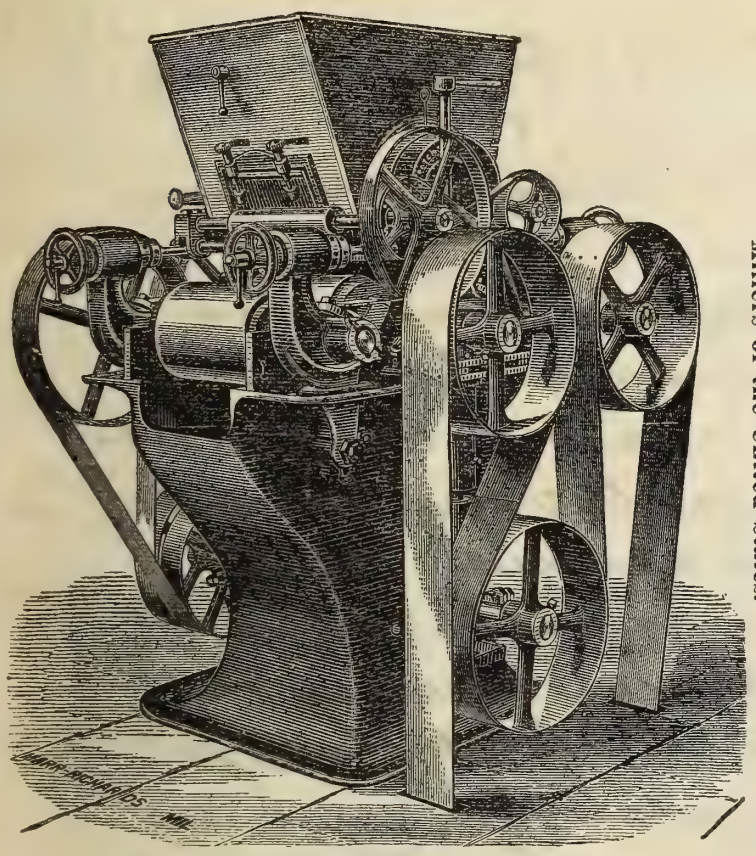
When you visit Toronto, come direct to OAK HALL, and fit yourselves out with a Good Suit. Remember the address:—OAK HALL, the Great One Price Clothing House, Toronto, opposite St, Jame's Cathedral. 1L8

Flour Making by the New Process

GRAY'S PATENT

NOISELESS ROLLER MILL

A Model of Perfection!
Every Mill a Success!



CORRUGATIONS of all Descriptions.
Smooth Iron or Porcelain ROLLS.

☞These Roller Mills are used by all the Representative Millers of the United States.

The Machine is Perfect in all its adjustments, and RUNS WITHOUT NOISE.

It is doing Better Work than any other Machine in use.

Automatic Lubrication of Principal Bearings.

Driven entirely by BELTS.

Differential Speed always insured.

WEYMAN'S NEW IMPROVED PATENT

Porcelain Rolls

The BEST ROLL FOR MIDDLINGS in the world. Over 6000 in use in this country and Europe. Send for particulars.

MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

SOLE LICENSEES FOR DOMINION.

Manufacturers of Improved Hoisting Machinery, MINING and CONTRACTORS' PLANT. Importers of BEST STEEL WIRE ROPE. Mention this Paper. 1119

MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.
HOYT'S CELEBRATED LEATHER BELTING.
COTTON BELTING, for Flour Mills, &c., Superior Quality.

DISSTON'S CELEBRATED MILL SAWS.

Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 1121

ESTEY, ALLWOOD & CO., SAINT JOHN, NEW BRUNSWICK.

THE GOLDEN LION

IS THE RIGHT HOUSE FOR

CLOTHING

No Shoddy Cloths used. All Goods Manufactured on the Premises.
☞EVERY GARMENT WARRANTED.☜
Men's Flannel Shirts and Durable Underclothing.

ORDERS SENT WITH MONEY PROMPTLY ATTENDED TO.

R. WALKER & SONS, 33-37, King & Colborne Sts., Toronto

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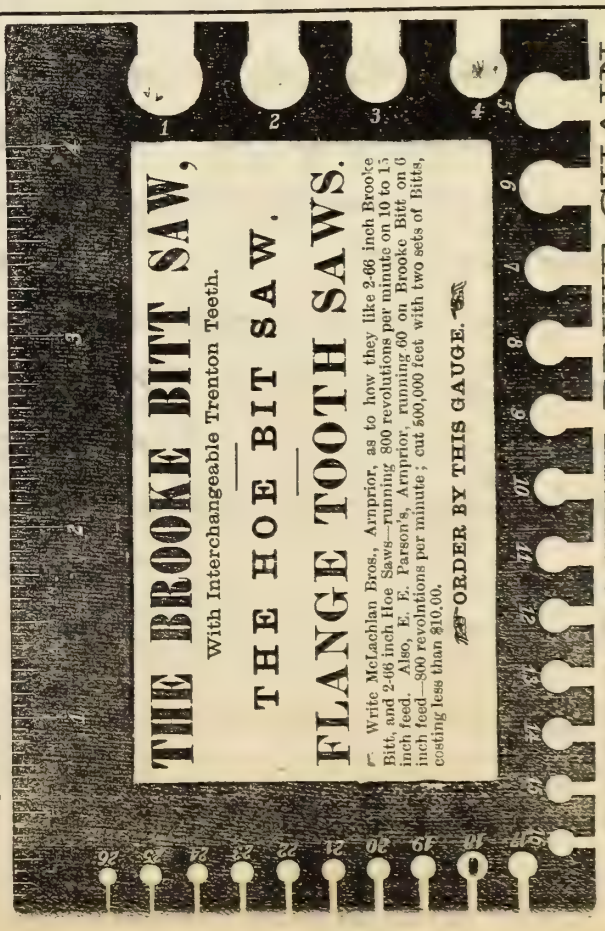
HEADQUARTERS FOR INSERTED TOOTH SAWS!



THE BROOKE BITT SAW,

With Interchangeable Trenton Teeth.

THE HOE BIT SAW.

FLANGE TOOTH SAWS.

☞ Write McLachlan Bros., Arnprior, as to how they like 2-66 inch Brooke Bitt, and 2-66 inch Hoe Saws—running 800 revolutions per minute on 10 to 15 inch feed. Also, E. E. Parson's, Arnprior, running 60 on Brooke Bitt on 6 inch feed—900 revolutions per minute; cut 500,000 feet with two sets of Bitts, costing less than $10.00.

☞ORDER BY THIS GAUGE.☜

EWART'S PATENT DRIVE CHAIN

FOR SAWDUST CARRIERS, LIVE ROLLS, TRIMMERS and REFUSE CARRIERS.

BROWN'S PATENT SPALT MACHINE

Cuts three perfect Shingles out of inch board. Cuts Shingles out of slabs and all manner of refuse. Will soon pay for itself around any large Mill.

AUTOMATIC GANG TRIMMERS, SIX SAW EDGERS, and the most improved Saw Mill Machinery. PORTABLE SAW MILLS OUR SPECIALTY.

Address, WATEROUS ENGINE WORKS CO., Brantford, Canada.

Toronto November 17th 1891

Messrs The Joseph Hall Manufg Co
Oshawa
Ont.

Gentlemen

I saw you were Manufacturing Engines and Mill machinery in 1872 & you supplied me with all the Machinery for my Saw-Mill at Midland.

Every part of the work was strictly first class and gave me the greatest possible satisfaction. I never saw as good a lot of Machinery. The material was the very best quality and the workmanship unsurpassed. Until my Mill was burned and rebuilt I did not fully realize how entirely you carried out your agreement to do me a first class job

The Engines, Boilers, Circulars, Gauges, and connections worked splendidly In the erection of the Machinery we had no trouble every thing was according to the plans and specifications furnished and was put together without alteration of any kind I am pleased to learn that you have repurchased the patterns and plant you sold to the McGill Manufg Coy and intend to manufacture all kinds of Mill Machinery You shall have all the work I can send you

Yours very truly

W H Cook

President of the British Canadian Lumbering and Timber Co.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President.

JAMES T. BARNARD, Hamilton, Secretary-Treasurer.

SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERSTON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ., PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

1111

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

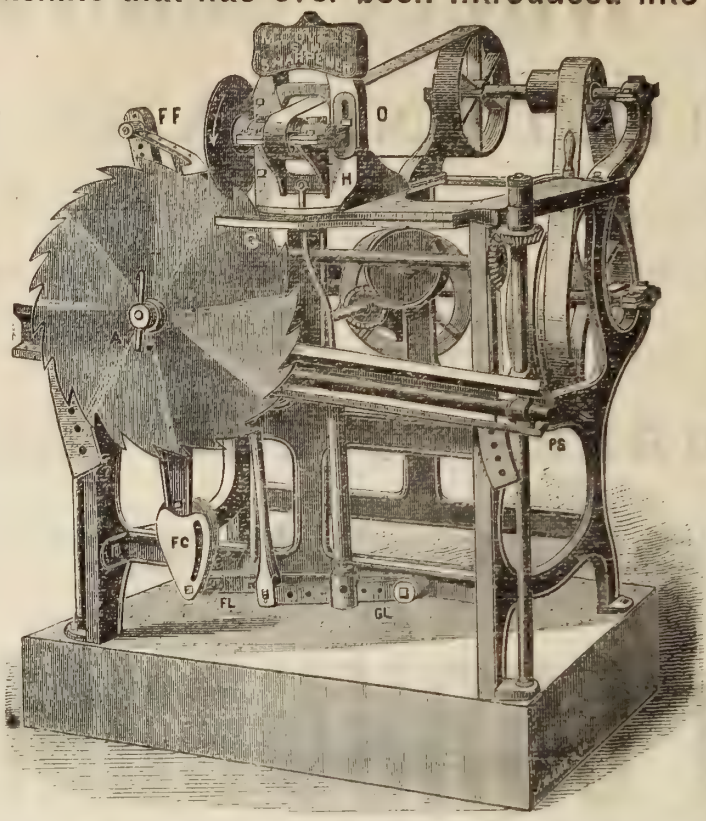
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.

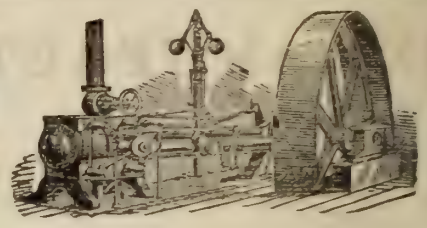


MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS

CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1tf

WILLIAM HAMILTON,
PETERBOROUGH, ONT.

EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS
TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eigths of all in use are beveled.

The principal sizes are:

8x⅛, 8x3/16, 8x¼ } ⅜ in. hole. 10x⅛, 10x3/16, 10x¼, 10x5/16 } ⅜ in. hole. 12x⅛, 12x3/16, 12x¼, 12x5/16, 12x⅜, 12x7/16 } ⅜, ⅞ and 1 inch. Holes.

Probably more wheels 12x⅛, 12x¼ and 12x⅜ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1tf

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania
CANADIAN TRADE SPECIALLY SOLICITED.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

VOL. 2. PETERBOROUGH, ONT., APRIL 15, 1882. NO. 8.

WHAT WE OWE TO THE TREES.

We continue our extracts from Mr. N. H. Egleston's paper in the April number of *Harper's Monthly Magazine* :—

DIMINISHED RAINFALL.

Humboldt is reported as saying: "Men in all climates seem to bring upon future generations two calamities at once—a want of fuel and a scarcity of water." The two come alike from the destruction of the forests, as a little consideration will show :—

The importance of water for successful agricultural operations has always been understood It is only within a comparatively recent period, however, that the relations of the forests to the water supply and its distribution have been ascertained, and they are not understood even now. Enough is known, nevertheless, to warrant some very important conclusions. It is well established that the forest, except in winter, is cooler than the open ground. There will naturally, therefore, be more condensation and precipitation of the moisture of the atmosphere in a wooded region than in one destitute of trees. The lower temperature of the woods will also make itself felt for some distance above the trees, and tend to precipitate the moisture of the higher air. Then, also, without making anything of a somewhat extended popular belief that the forests, especially when situated upon hills and mountains, draw the clouds and the rain, we can see that elevated forests would act as an impediment to passing clouds, and by their very obstruction tend to condense their moisture and cause its precipitation. This effect of the forests will not be limited to their own area, but will extend more or less to the open ground beyond them, causing the rain to fall upon them for a considerable distance, when but for the vicinity of the forest they might not have been touched by it. An eminent scientific writer states that in a region near the Gulf of Guayaquil, which is covered with immense forests, the rains are almost continual. So on the island of St. Helena we have the double proofs of our problem in the ascertained fact that with the cutting off, some time ago, of the forests with which it abounded, the rains were lessened, and certain crops greatly diminished, and now, in later years, as the woods have been allowed to grow again, the rains have increased in proportion. Sir John Herschel, speaking of this subject, says: "This is no doubt one of the reasons of the extreme aridity of Spain. The hatred of a Spaniard toward a tree is proverbial. Many districts in France have been materially injured by denudation, and, on the other hand, rain has been more frequent in Egypt since the more vigorous cultivation of the palm-tree." The Island of Santa Cruz, near Santa Barbara, was once heavily timbered, and sustained a dense population. Now it is almost destitute of trees, except on the highest summits. It has no water, and gives no return to the husbandman. "It is impossible," says one, "to conceive a more dreary waste."

Near the close of the last century a lake in the valley of Araguay, in Venezuela, was observed to be lessening in area as the settlements in the valley and its cultivation increased. A civil war broke out in that region, which led to the neglect of agriculture, and allowed the forest vegetation again to spring up. It was observed a quarter of a century later that the lake was resuming its former size. So it has been observed that since the settlement of Utah, and the reclaiming of the land by the Mormons, and the growth of trees, shrubs, and grasses, the water in Great Salt Lake and other lakes around has been very much increased, and the climate perceptibly changed.

We have few trustworthy and exact observations on this point in our country. In Europe they are more abundant. The river Elbe between the years 1787 and 1837 was found to have lessened a depth of ten feet, as the result of the cutting off of the forests where the tributaries of that stream have their origin. A similar result has been found in the case of the Danube, the Oder, and other streams.

FLOODS AGGRAVATED.

In Europe and elsewhere in the Old World the most fearful losses from the removal of the forests are frequently incurred. Witness the flood which in 1880 desolated Szegedin, in Hungary, and that which last year took place in Spain—poor Spain, which long ago sunk in power because she had not timber enough in her wasted forests to keep alive her navy ! So in France, and elsewhere along the Alps, in Germany, Austria, and Italy, they have learned by bitter experience that the trees are their best friends. In southeastern France whole cantons have been almost depopulated.

At Szegedin a population of 60,000 were overwhelmed by the waters of the Theiss. The Theiss district of Hungary is naturally one of the richest agricultural regions of the world. But it has long been known as a region of floods. The Theiss has its source in the Carpathian Mountains on the north. Formerly these were densely wooded, and they sent down their waters, whether rains or melting snows, into the valley of the Theiss with an even, steady flow. But the unrestrained greed and recklessness of man ravaged the forests, and opened those vast mountain flanks to sun and wind. The unimpeded waters first washed the soil of the mountains down into the stream below. Then wearing channels for themselves, they have cut these channels deeper and deeper from year to year, and as they have done so, they have torn the mountain-side with greater violence, and swept the rocks and gravel onward with resistless power for hundreds of miles. Thus the bed of the Theiss has been gradually filled up with the detritus of the upper country, until the river flows on a higher level than the adjacent land, and the inhabitants have been obliged to dike the sides of the stream as the price of their own protection from ruin. But now and then the ruin comes, as at Szegedin, by the torrents which have hurled the debris of the mountain sides upon the fertile fields of the valleys below. In one district the population declined 5,000 in five years from this cause, the people being driven from their former homes and obliged to take up their residence elsewhere. But where this has not been the result, the almost yearly recurring floods have been attended with great loss of property and the sacrifice of many lives. In a recent flood in the valley of the Garonne it was estimated that 1,000 lives were lost, and a place of 30,000 inhabitants was almost blotted out of existence, while property to the value of 300,000,000 francs was destroyed. These destructive effects of floods and torrents had been experienced in some measure for a long time. But with the more rapid clearing away of the forests, which dates from the time of the French Revolution in 1789, these evil effects had become mere frequent as well as more disastrous. So far had this work of destruction and this real impoverishment of the people extended, and so threatening had become the prospect of farther and most serious national loss, that about thirty years ago the matter was taken in hand by the government, and vigorous measures adopted for the purpose of arresting the evil, if possible, and reclaiming the injured soil. Investigating commissions were appointed, and the most careful examinations were made by competent engineers and scientific experts, the result of which was the enactment of a code for reforesting the mountains. Under this code a large expenditure was authorized to be made annually by the government for a period of ten years, for the purpose of replanting those districts which had been stripped of their trees, and which had thereby given occasion to the torrents. The right of eminent domain was asserted. No one was now at liberty to remove at his pleasure the trees growing upon his own ground. He could cut them only under governmental direction, and in a way that would not be injurious to others ; for it was seen that some peasant, living high up in the Alps, and desirous of extending his pasture ground by cutting off the forests around him, might by so doing give rise to a torrent which would carry destruction to the fields of someone miles below, perhaps to the fields of a whole village.

Where the fields have been laid bare, the government offers aid to those who need it in replanting them. If any will not, with this aid, set about the work of replanting, the authorities having the work of reforesting in charge take possession of the lands and replant them. The owner has the right of redeeming his land at any time within five years after the replanting by the government has been completed, on condition of paying the cost of the labor expended, principal and interest, or by surrendering half of his land. In case this is not done, the land becomes wholly the property of the government.

THE FORESTS OF SIBERIA.

Some examinations have recently been made by exploring parties, of the character of the immense forests of Siberia. The most important timber stretch begins a little south of Dudino, and still far north of the arctic circle the pines become tall. Here is a veritable forest, the greatest the earth has to show, extending with little interruption from the Ural to the sea of Ochotsk, or about 650 miles, and four times as much from east to west. This primeval forest of enormous extent is nearly untouched by the axe of the woodman or cultivator, but at many places devastated by great forest fires. The forest consists principally of cembro pine, valued for its seeds, enormous larches, the nearly awl-shaped Siberian pine, the fir, and scattered trees of the common pine. Most of the trees north of the arctic circle reach a colossal size, but one is often found far isolated from all others, grey and half dried up with age. The ground between the trees is covered with a laby rinth of fallen branches and stems, which are frequently covered and almost concealed by luxuriant beds of mosses. The pines therefore lack the shaggy covering common in Sweden, and the bark of the birches scattered through the pines is distinguished by an uncommon blinding whiteness.—*Northwestern Lumberman.*

A Heavy Timber Growth.

A critical examination was recently made of a tract of timber land, in the Samish section of the Puget Sound, W. T., region, including 160 acres. The parties making the inspection went entirely over the tract, counted the trees and computed their contents, and the estimate reached 12,000,000 feet of sawed merchantable lumber, or an average of 75,000 feet per acre. The stumpage at present is worth 50 cents a thousand, but the time will come, and that at no distant day, when it will be worth $2 to $3. The value of Puget Sound timber land will then make speculators wish they had bought some of it when it was cheap.—*Northwestern Lumberman.*

Big Cedar.

Messrs. T. W. Robinson and others have been for some time past taking out cedars for the Midland Railway of Canada. The principal scene of their operations has been the township of Smith. They have secured some fine pieces but a log taken out by Mr. Garner Nicholls, of Bridgenorth, on the farm of Mr. J. C. McConkey, undoubtedly carries of the palm. The log in question is 24 feet long and 27 inches at the top end. It contains 790 cubic feet. It is the largest of over 15,000 pieces taken out by the firm.

LIFE AND AGE OF A TELEGRAPH POLE.

This subject may seem of trival account to the great mass of business people, but when it is proved to them that it actually affects the cost and convenience of telegraph messages and of dividends to stockholders, an interest may be awakened that will make the inquiry on the subject one of unusual interest, inasmuch as it affects the high or low price of rates for messages. The original cost of the erection of telegraph lines is important, but not so important in a series of thirty or forty years as is that of its maintenance in working order during that period. Some of the lines now owned and used by the Western Union Telegraph Company were first built more than forty years ago. When one is told that they have been built three or four times since that at great expense, it would seem to lead to the conclusion that a large amount of capital is necessary to represent the actual cost of the telegraph lines which have been in existance for many years.

The size of a telegraph pole has much to do with the duty which it is expected to do—that is, the number of wires it is calculated to carry. Many telegraph companies now owned by the Western Union Telegraph Company of to-day were organized and there lines built many years ago, before the organization of the "N. Y. and Missippi Valley Printing Telegraph Company" in 1851, its name being changed to that of the 'Western Union Telegraph Company" in 1856, by an act of legislature of New York State.

The contract to build the original line required that the posts be not less than thirty feet long and twenty-seven inches or more in circumference, four and a half feet from the butt, and twelve inches in circumference at the top, and set in the ground five feet. There were to be at least thirty of these posts to the mile, and they were to carry two lines of iron wire, one of which should weigh not less than six hundred pounds to the mile, and the other not less than four hundred and fifty pounds to the mile. These posts were to be of the best and most durable timber obtainable along the route they were stationed. These posts were intended for light lines only. When it was found necessary to increase the number of wires it was necessary to have larger and more heavy poles, not necessarily much taller only in cities and large towns.

When considered apart from any local catastrophe or universal storm, the poles which were cut in winter were found to last as follows, according to the wood used, without being renewed :—Cedar, 16 years ; chesnut, 13 years ; these are used in the Eastern, Middle, and Western States. Juniper and cypress are used in the Southern States, and redwood is used in California. Spruce lasts 7 years and juniper 13 years. If poles are cut in the summer their life will be about five years shorter than if cut in the winter. The soil in which they are set, and also the atmosphere and sunlight, have much to do with their life, for if one breaks off at the surface of the ground, or near the surface, as is usually the case, it will be five feet or more shorter than the others, and hence it is generally regarded as unfit to reset, and a new one must take its place. In some location this is provided for by having all the poles long enough to reset if they are sound enough for it to be economical to do so. The average period of the usefulness of a pole under ordinary circumstances is as above mentioned. It is seldom that mixed woods are used on a line ; they are all of one kind of wood.

The official return of the Western Union Telegraph Company to the Superintendent of the United States Census, in July last, shows the following facts as to the poles used during the year :—Average length of poles, 27 feet ; diameter at top, 6 inches ; kind of wood used, cedar, chestnut, juniper, cypress, and redwood. These poles were obtained in all parts of the United States and in Canada. The average cost of each pole delivered without reight was one dollar and two cents. All these poles were round, except about one-fiftieth, which were sawed or squared. No process was used for preserving poles, and their average life, according to the wood used and the location where set, was twelve to fifteen years, and most durable wood in favorable situations did not exceed twenty-five years. The woods preferred were red cedar, white cedar, chestnut and redwood. It is to be observed that pine and hemlock are not used. It may be remarked here that American telegraph poles make an agreeable contrast with the crooked and unsightly larch poles used in England.

The falling of a pole generally does much damage to the arms, insulators and wires. If they were all put up new at once, plain wire will last from twelve to fifteen years, and the galvanized wire used at the present day, being the best conductor, will last in the most favorable atmosphere for from sixteen to twenty years, but no longer ; and where there are strains by poles or wires falling they will not last so long, and in cities and large towns, where there is much gas and moisture, it will not last more than two or three years. At all events, when a line begins to be about ten or twelve years old, and has plain wire, it is regarded as unreliable, and the safest and most economical way is to rebuild it throughout of new materials. The cost of constant repair and isolated and frequent transportation of posts and other materials, and the labor of repairs and resetting, are almost as much in a short time as it would to rebuild. The gauge of wire and the number of pounds to the mile are as follows : No. 4, 730 pounds ; No. 6, 540 pounds ; No. 8, 380 pounds ; No. 9, 320 pounds.

From these facts we can see that a telegraph line that is thirty-six years old has been entirely rebuilt three times at least under the usual course of things, and that it may have been nearly four times rebuilt. The trunk lines of the Western Union Telegraph Co. were first built more than thirty years ago, and nearly all of their lines have been rebuilt at least once. Where a line is built for only a few wires and it is proved that more are required it is then necessary to rebuild it entirely, with longer poles, and in such cases all wires are also put up new, if they are expected to be in constant use.

The maintenance in working order of continual expense to provide for the wear and tear incident thereto, the same as is the case with railroad lines, where it is always calculated that there are to be a certain proportion of new ties, rails, etc., every year, and it is charged to the maintenance account and reckoned as part of the cost of running the road.—*Journal of the Telegraph.*

CANADA AT CHICAGO.

A correspondent of the Montreal *Witness* writes from Chicago as follows :—"Yesterday, Tuesday, I had the opportunity of being driven through the lumber district by Mr. Wilce, senior partner of Thomas Wilce & Co. Mr. Wilce is an old Montrealer, having arrived there from Cornwall forty years ago, and engaged for for several years in business as contractor. In 1848 he removed to Chicago, where he continued his contracting. Having secured a competence before the fire, he retired from business, but two or three years after entered the conflict again, having secured possession of a planing mill, which now does the largest amount of work of any in Chicago. About five years ago he added to this a lumber yard at the corner of 22nd and Throop streets, with a frontage of 400 feet by 250 in depth, where annually is handled about 14,000,000 feet of lumber. This is in addition to the 5,500,000 shingles and 32,000,000 feet of lumber consumed in the planing mill. In the planing mill ten machines are at work, running at the highest rate of speed. The employees are mostly Bohemians, and a number of women and girls of that race were engaged in gathering the shavings from around the machines into immense bags, so large and heavy that it was as much as I could do to lift one. These they attach to their shoulders by means of straps and carry to their homes, a mile or more away. These women are the best featured and healthiest looking I have seen in Chicago, with, of course, an occasional exception. Mr. Wilce showed me the plan for feeding the furnaces below the boilers, which was invented by a former engineer. The shavings were made to fall into the furnace like snow in a heavy storm, and as it fell it was consumed, the combustion being perfect. This is a great saving of labor, the fireman being able to regulate the fall by means of a switch, while an automatic poker swaying from side to side kept the fire constantly stirred. In rear of the planing mill is a very large sash and door factory, in which Mr. Wilce's son is an equal partner. Here are made all kinds of articles for use in the building and finishing of houses in the great North-West.

FOOLED ONCE MORE.

Markdale (Ont.) Standard.

Mr. Editor,—The most of people relish a good story, provided it be a truthful one. Tales of adventures, daring, heroism, dangers of the deep, battles, &c., all have their charms. Who amongst us could read the adventures of Robinson Crusoe half way through and not have a desire to know the end of it. We confess being of this class. Now, the first thing we do when we receive our weekly newspaper is to hurriedly glance through it and pick out what we consider the most important items. These are generally distinguished by their headings ; but you don't catch us trusting any longer to these glaring impositions. We could laugh at being fooled once or twice, but to get caught a third time is our reason for remonstrating. Two or three weeks since we got to reading what we considered a very nice story in one of our Toronto weeklies, and towards the end it informed us about St. Jacobs Oil ; we only laughed, and said humbug. The week following we noticed another heading, "How Mark Twain Entertained a Visitor." Well, thinking we might learn a little etiquette, in case Mark should take a fancy to send us an invitation, we read it, but by St. Patrick, if they didn't finish by making Mark introduce St. Jacobs Oil. Well, confound it, we exclaimed, but they have got another dose of that St. Jacobs Oil on us again, and determined not to be caught so simple next time ; but now, sir, I admit the corn ; along comes our Toronto *Mail* on Thursday, down we sat, and almost the first thing that caught our eye was the adventures of Capt. Paul Boynton ; it appeared quite interesting ; it told how he bumped up against sharks, etc. At this point we began to feel a little incredulous, because, from our knowledge of these gentry, they would relish the captain alive or dead, all the same. However, determined to learn more of his exploits, we read a little further, when—O, well, it don't matter what we said, you can't find it in any of the dictionaries. I'm—dashed if the captain wasn't oiling himself all over with St. Jacobs Oil, it may be the more easily to evade the sharks, for we made no further search, our curiosity was satisfied. Now, Mr. Editor, in order to fool us again, it will require to be printed wrong end up. We have made up our minds to look out for anything and everything in the shape of St. or Saint attached to their name.

We are sorry for the readers of any journal to be thus "taken in," so to phrase it, but what can they expect when we editors are caught in the same storm without any protection. Whilst sympathizing with them, we can only admire the ability shown in any enterprise that can thus compel, as it were, the attenton of people. When it is considered that only a short time ago St. Jacobs Oil was scarcely known in Canada, and now has so commended itself to the favor of the people of the Dominion as to become the household remedy for rheumatism, neuralgia, pains, bruises, chilblains, etc., and all because of its surprising efficacy in these ailments, we think it will be regarded by everybody as a matter of congratulation that we possess, so easily attainable, such a reliable means for the cure of disease. Such is our view of the matter, although we are "fooled," on an average, about five times a week. If St. Jacob can stand it, we've made up our mind to fight it out on that line, if it takes *all winter.*"

QUEBEC PINE LANDS.

The Quebec Legislative Assembly, on April 11th, went into committee on the following important resolutions respecting public lands :—1. That the pine timber upon public lands shall in future be reserved in all sales, grants, location tickets, leases, or permits of occupation. Such timber shall belong to the Crown, and the reserve thereof shall be mentioned in all location tickets and letters patent, and every person now being the holder, or who shall hereafter be the holder, of a license to cut timber upon such lands may, during the continuance of such license, by conforming to the regulations now or hereafter to be in force relating to timber on Crown lands, enter upon the uncleared portion of such lands, and cut and remove such trees, doing no unnecessary damage to the property, and make all necessary roads to remove such timber and haul in supplies. Notwithstanding the above reserve, the locatees being holders or not of letters patent, or their assigns, may, however, cut and use such pine timber as may be necessary for the purpose of building and fencing on the said lands, and by paying the same price as the holders of licenses to cut timber or saw logs, they may dispose at pleasure of those which they may cut down in the clearing of the land necessary to obtain letters patent. 2. That when there is no license to cut timber upon such public lands, the commissioner may, in such case, sell at public auction the pine timber so reserved by these resolutions by complying with the provisions of the Act 36 Vic., cap. 9. 3. That the Crown shall out of the consolidated revenue fund of the province pay to the persons who shall in future acquire public lands by sale, grant, location ticket, lease, or permit of occupation, or to their heirs or assigns, for the pine cut upon such lands, and upon which the Crown shall have collected dues, the sum of 25 per cent. of the dues so collected for the timber cut on such lands since their sale. Regulation shall from time to time be made by the Lieutenant-Governor-in-Council for the purpose of ascertaining and determining the persons to receive such payments, the sums to be paid, and the date of payment.

After a brief debate the resolutions were adopted in committee, and a bill based on them read a first time.

Forestry in England.

A paper on the "Teaching of Forestry" was read before the Society of Arts recently by Col. Pearson. The people strongly urged the necessity of establishing in Great Britain a school of forestry in connection with the State, where young foresters could be trained, instead of sending them to Continental schools, before drafting them to India and other colonial possessions for forest service. A committee is to formed in order to bring the matter under the consideration of the Government.—*Timber Trades Journal.*

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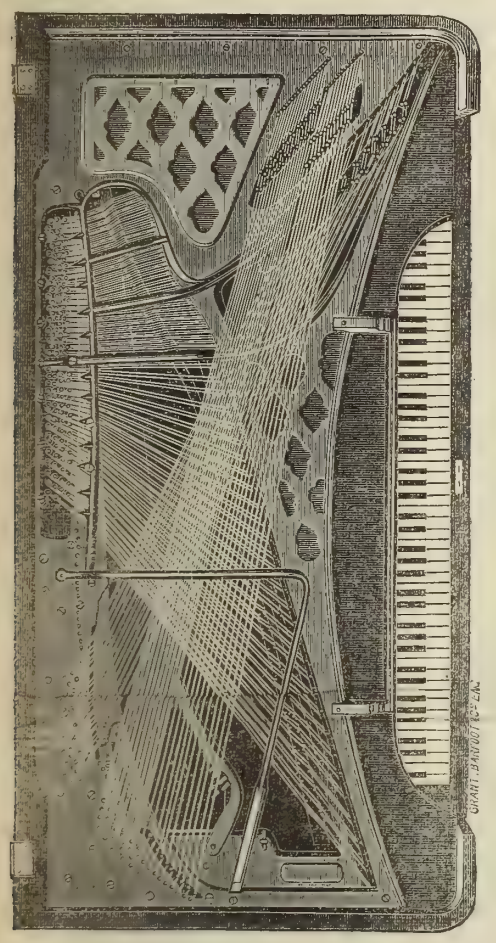

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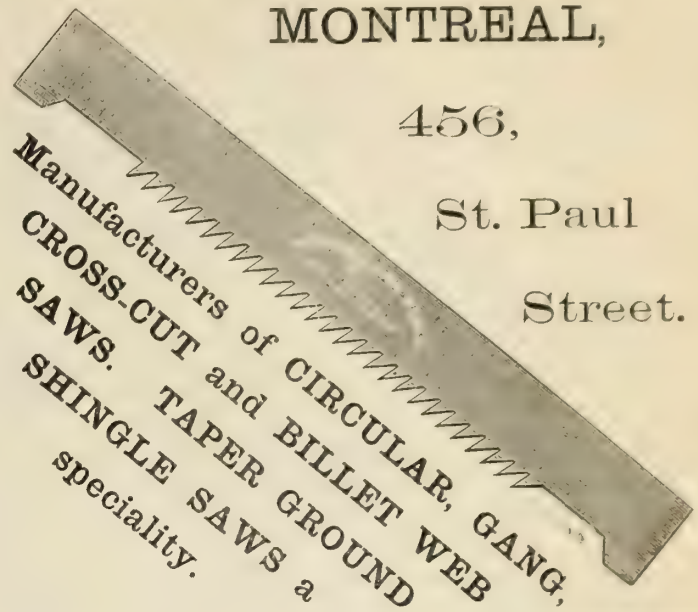

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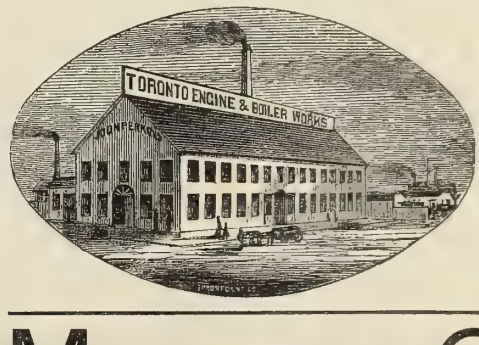

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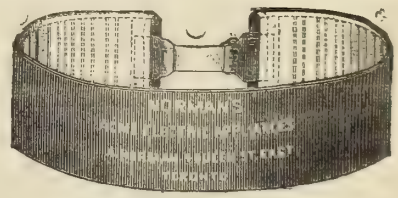

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TRADE WITH THE NORTHWEST.

The Chicago *Northwestern Lumberman* in an article headed "Out of Reach," thus describes the prospects of the trade of the old Canadian Provinces with the Northwest :—

There is a good sized persimmon growing north of the British line, in Manitoba and the northwest territories of the Dominion, that is out of reach of the American pole. Reference is made to the immense demand for manufactures that is growing up in that section of the continent, and that is bound to expand continually as settlement progresses. There is an inhabitable territory in that region as large as the northwestern states of the Union, and it is destined to become occupied by populous communities, and that at no distant day. Immigrants are arriving there in large numbers, cities and towns are being built, railroads constructed and projected, and speculation is rampant enough to stimulate a rapid filling up of the country. The demand for manufactured goods in Manitoba is even now large, and it is being principally supplied from the Canadas, the tariff on goods from the United States being an embargo on trade from this side of the line. The Dominion papers are felicitating the manufacturers of the provinces because they have, for once, the advantage of their Yankee competitors. They say, had our tariff remained as it was three years ago and before, then the trade of the Canadian northwest would have been seized upon by American mannfacturers, and Chicago and St. Paul would have taken the business which Montreal, Toronto and Hamilton are now doing. The Canadian *Manufacturer* even works itself into a mood of pious thankfulness about this excellent state of affairs, and says that "it seems almost providential that the change in our policy came just in time to keep this vast Canadian trade in Canadian hands, and to retain, for the good of our own country, what would otherwise have been appropriated by foreigners."

Thus our cousins across the border are delighted to think that they will get even with their great rival in the trade of the continent. The Canadians have hitherto felt as if they were crowded off over on the wrong side of the lakes and the St. Lawrence, and while they warmed their hands and toasted their knees by the sunny border of the Union, their backs are bumped up against the snow-drifts and icebergs of the North, and to the westward a howling and inaccessible wilderness fenced them back from following the star of empire. If there had been no trade restrictions between the Dominion and the United States the Canadians could have thriven in spite of their cold backs and restricted position, but the tariff laws of both their own and the American government hampered their trade, checked their progress, and induced a depleting emigration to the United States for the sake of ampler space and opportunity. But the opening of the Canadian Northwest to settlement, and the projection and partial completion of the Canadian Pacific railway, has developed enterprise and started a tide of emigration to Manitoba and the prairie regions to the westward that promises a fresh empire for the Canadians. A new community ten times as large and populous as the original Canadas is a prospect to the people of the old Provinces that almost bewilders them with its coming mightiness and opportunity for getting rich. Now the manufacturers of the Dominion, and those who want to become such, are glad that there is a commercial wall between them and the United States, for the golden opportunity that is looming up in the Northwest is all their own, and no Yankee despoiler, with his provoking shrevdness, enterprise and capital can walk in and grasp the prize. There is the article of lumber, for instance ; the Canadians have counted it their principal source of wealth, but they have been obliged to market it over the border at a sacrifice of $2 a thousand, which amounted to a serious competition with Saginaw pine in the eastern trade. But now a brighter era dawns. As soon as railroad communication is opened to Manitoba, the vast prairie regions of the Canadian northwest can be supplied without paying any tariff, while American lumbermen look on and bng for the commercial persimmons that they cannot reach.

There is no denying the fact that the Canadians have reason to gloat over the good prospect that is before them. It is plain, too, that the tariff on lumber between the two countries, which has served to give American lumbermen a monopoly of the trade on this side, will act as a boomerang in reference to the immense demand for lumber that will grow up in the Canadian Northwest. It may be said that but little Michigan lumber could ever reach the valley of the Saskatchewan. That is not positively the fact. Michigan has abundant water communication half way to Manitoba, and transportation thence by railroad will be very direct. But granting that Michigan pine would not tend in that direction in any event ; Minnesota and northern Wisconsin lumber certainly would, if there were no tariff laws to prevent. A heavy demand for northwestern pine to go to Manitoba and other countries contiguous, would become a prodigious drain on the supply of Minnesota and Wisconsin, which, in turn, would create an aching void in our own Northwest, beyond the Missouri, which would inevitably have to be supplied from Lake Michigan markets. Thus a drain in one section of the field effects a drain in all other sections. This will be more and more obvious as the general supply diminishes during the process of time.

This article is not intended as an anti-tariff advocacy ; it is a mere reflection of the present and prospective condition of Dominion trade and manufactures, and of the way the development of the new Canadian Northwest is certain to benefit Canadian manufacturers of lumber, as well as other goods, while Americans must to a great extent, be deprived of its benefits through the workings of its present tariff laws. That the advantage already derived from these laws, and to be derived from them, does not more than compensate for any loss that may result from being deprived of the profits of Canadian northwestern trade, is another phase of the question

SAVE THE HARDWOOD.

Under this head the Grand Traverse, Mich., *Herald* says :—The time for a reckless and indiscriminate cutting and burning of hardwood timber in this region is over. The first thing a new settler has to do, of course, is to clear land, but when once sufficient clearing is made for immediate use, the hand of destruction should be stayed. Remember that a little land well tilled is better than a large amount carelessly cultivated. In going a few miles in almost any direction around this county one may come upon clearings where trees have been cut, fallows burned, and then the ground left to grow up to elders, blackberry bushes and noxious weeds. This is poor farming to start with, but that is not the main consideration at the present time.

The magnificent hardwood which covers the uncleared portion of our county will soon be in demand, and the demand will constantly be on the increase as the years go by. Already on the Lake Huron shore bird's-eye maple commands $6 per thousand, and the day is near when it will bring double. There is no finer maple in the world than ours. Hemlock and cedar will also soon have their day. So go slow. Clear as you need the land, but do not needlessly destroy. Thin out where you must have wood and let the best stand. Ten years from now you will be glad you did it. The grand old trees are capital at interest and will bring a good deal more than 10 per cent. on the investment. The fire will not run through your hard timber, taking your fortunes away in a day, as has been the experience of many a pine speculator. Now is the time to look ahead. Once lost, the opportunity can never come again.

FLOATING HARDWOOD.

The *Lumberman's Gazette* has the following letter :—

QUEBEC, March 17, 1882.

MY DEAR SIR,—I notice in your issue of the 15th inst. an interesting article entitled "Maple Logs," in which you allude to the supposed impossibility of floating hardwood timber, with the hope that the difficulty may be overcome.

I saw, a few years ago, in the London *Timber Trades Journal*, the mention of a process employed in India, for floating heavy timber, even teak, (it is called girdling). A ring of bark is removed from all round the tree. The tree dies very soon and begins to dry up more thoroughly than if it was lying on the ground. After a certain time it becomes light enough to float and it is then cut down.

I made an experiment on some hardwood trees, girdled them in winter and left them standing for two summers, after which they were cut down and floated ; there was some birch and some elm. I now propose trying with oak and maple, as the first experiment has proved a success.

If it does not injure materially the quality of the wood, it will be a great advantage and render accessible a large quantity of hardwood which is now lost on account of the great expense of hauling it any distance by land.

May I ask you for some information on a subject which has lately gone the rounds of the the papers. A farmer in Wisconsin is reported as having sold for $23,000 the cutting of a plantation of black walnuts, made by himself about 20 years ago.

Great efforts are being made to encourage the the culture of forest trees and especially black walnut. The example of the Wisconsin farmer would act as a great inducement, could it be well authenticated ; with your widespread relations it would be comparatively easy for you to find out all about this matter and lay full information before the public.

I feel certain that you will not overlook such an important subject, and remain,

Yours truly,

H. G. JOLY.

We have no means at hand at present of giving any definite information in regard to the sale above alluded to. The facts in regard thereto, as stated above, were published in a local paper published at the time and place where the sale took place, and are undoubtedly correct.

BOARD OF TRADE RETURNS.

MONTH ENDED 28TH FEB., 1882.

Timber (Hewn).	*Quantity. Loads.*	*Value. £.*
Russia	344	623
Sweden and Norway	21,829	34,004
Germany	2,411	7,639
United States	8,955	31,826
British India	2,732	36,614
British North America	256	878
Other Countries	30,178	31,937
Total	66,685	142,521
Timber (Sawn or Split, Planed or Dressed).		
Russia	8,601	19,057
Sweden and Norway	29,954	85,395
British North America	14,563	36,604
Other Countries	13,230	43,148
Total	66,348	184,204
Staves, (all sizes)	3,203	20,725
Mahogany (tons)	2,205	21,480
Total of Hewn and Sawn	133,033	326,725
TWO MONTHS ENDED 28TH FEB., 1882.		
Timber (Hewn).		
Russia	6,224	15,488
Sweden and Norway	40,950	66,726
Germany	6,473	18,748
United States	17,114	59,708
British India	5,513	69,922
British North America	506	1,878
Other Countries	59,708	65,695
Total	136,488	298,165
Timber (Sawn or Split, Planed or Dressed).		
Russia	16,574	38,961
Sweden and Norway	65,520	178,615
British North America	32,149	78,935
Other Countries	24,409	80,363
Total	138,652	376,874
Staves (all sizes)	8,653	55,606
Mahogany (tons)	3,731	33,224
Total of Hewn and Sawn	275,140	675,036

UNEXPECTED SUCCOR.

PROVIDENTIAL ESCAPE OF SHIPWRECKED VOYAGERS.

At nine o'clock on the morning of the 30th of last December, the steamer *Moravian*, of the Allan line, bound for Liverpool *via* Halifax, while on her way from Portland to the latter place, ran ashore on the southwest point of Mud Island, some fifteen miles from the town of Yarmouth, Nova Scotia. A stiff breeze was blowing at the time and a heavy surf running, and the situation was one of peril. It was found that the forward compartments had filled with water and orders were given to lighten cargo while preparations were made to land the passengers on the island, with a supply of food and clothing. The landing was safely effected, but the cold was intense and some of the party were severely frostbitten. On the ship's manifesto was a consignment of St. Jacobs Oil, which the Toronto House of A. Vogeler & Co., of Baltimore, Md., had just shipped to Francis Newberry & Sons, London, to fill English orders. The part it played in the catastrophe is described in the following article, which we quote from the Yarmouth (Nova Scotia) *Tribune* of January 18th :—

"The passengers and crew of the wrecked steamer *Moravian*, during their brief encampment at Mud Island, suffered severely from exposure to the weather, and some of them were severely frostbitten. Fortunately among the lading of the ship was a package of proprietary medicines ; more fortunately still, the bulk of these consisted of St. Jacobs Oil, and by the prompt and liberal use of this invaluable remedy, the parties were speedily relieved and all unpleasant after consequences averted."

The Timber of Newfoundland .

The most valuable timber grown in Newfoundland says a recent issue of the Society of Arts *Journal*, is the white variety of pine (*Pinus strobus*). It is especially prized for the manufacture of lumber. In the Gander country alone Mr. Howley estimates there are 850 square miles covered with this growth, easily accessible by means of small boats on the Gander River. The yellow or red pine (*Pinus resinosa*) is another well known variety. Neither beech, elm, oak, nor cedar is found. Around St. George's Bay, and in the valley of the Humber also, are fine forests of timber. The colony derives no revenue from its forests, which are cut at will by all comers.

Should Not Be Transplanted.

A correspondent of the Detroit *Free Press*, anent the undertaking of a man in Michigan to reset 1,000 black walnut trees for commercial purposes, says they cannot be transplanted and retain their vigour. They should be grown from the nuts. He has made experiments by both transplanting and raising from the seed, which has convinced him that the latter is much the preferable way.

Tremendous Sales.

The druggists of this city are doing a big business now in the sale of St. Jacobs Oil. One druggist on whom we called on Saturday afternoon, stated that although his sales were large at first, they have doubled lately.

Another said that so popular has the Oil become that he could hardly keep the supply up. Not one to whom we have spoken but gave it a high recommendation and said that it must be effecting scores of cures, or there would not be such a demand for it.

The people have got the St. Jacobs Oil fever bad and no mistake, and confidence in its curing qualities is still growing stronger. Of course, this would not be so, unless the remedy was fully meeting its every promise.

IF YOU ARE RUINED in health from any cause, especially from the use of any of the thousand nostrums that promise so largely, with long fictitious testimoniais, have no fear. Resort to Hop Bitters at once, and in a short time you will have the most robust and blooming health.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

"Before you make a friend, eat a peck of salt with him," but you need not wait two seconds to find out whether the pen you have just tried is a good one or not. If not, try Esterbrook's.

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly to it wonderful effects.

FROM HAMILTON.—A gentleman writes :—"I have suffered for over four years with night losses and general weakness, caused by abuse. I had tried all the advertised medicines, and a number of eminent doctors, and found no relief or benefit. I have used twelve boxes of Mack's Magnetic Medicine, and am entirely restored." See advertisement in another column.

TAKE CARE OF THE LITTLE ONES.—Children are the mother's idol, the father's pride ; they are entrusted to your care to guide and protect, to fill positions of honor and trust. If you truly feel the responsibility of your trust, and want to make the duties of your office as light and pleasant as possible, don't allow a slight cold to prey upon the little ones, for even a single day or night may reveal the dreaded destroyer, Croup, but a few doses of Down's Elixir, if taken in season, will banish it, as well as Whooping Cough, Bronchitis, and all throat and lung affections. For sale by all dealers in medecine. Price 25 cents and a $1 per bottle.

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GRAVENHURST.

JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station. Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. 1L10

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The Most Convenient House to all Trains.

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The American Hotel,

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RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.

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MILL PICKS DRESSED in a first-class style. Those shipped by rail will be returned promptly.

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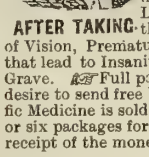

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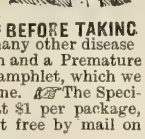

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will give immediate relief, and in a short time effect a permanent cure. After constipation follows **Biliousness, Dyspepsia, Indigestion, Diseases of the Kidneys, Torpid Liver, Rheumatism, Dizziness, Sick Headache, Loss of Appetite, Jaundice, Apoplexy, Palpitations, Eruptions and Skin Diseases, etc.,** all of which these Bitters will speedily cure by removing the *cause.* **Keep the *Stomach, Bowels, and Digestive Organs in good working order and* perfect health** will be the result. **Ladies** and others subject to **SICK HEADACHE** will find relief and permanent cure by the use of these Bitters. **Being tonic and mildly purgative they**

PURIFY THE BLOOD

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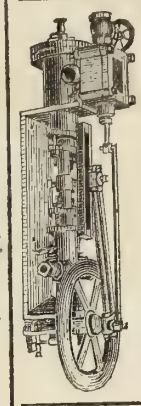

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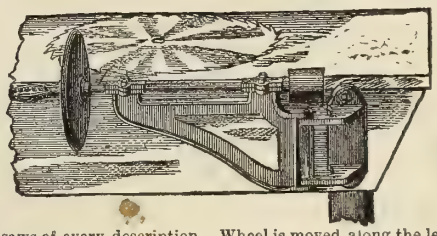

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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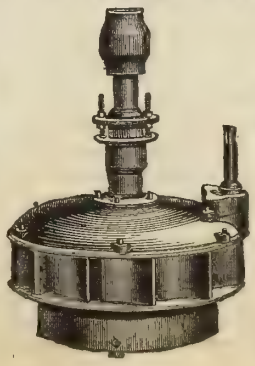

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. APRIL 15, 1882.

IT is thought that there will be more square timber brought to Toronto this year than last. In 1881 there were one million feet sent east from here.

A STICK of white pine was cut in a lumber shanty on the Madawaska, 47 feet in length by 36×35 inches square. It is said to be one of the finest pieces of timber ever cut in that region.

MR. J. T. LAMBERT, lumber broker of Ottawa, in writing to us enclosing his subscription and an advertisement, concludes in the following complimentary manner: "Your paper is very much though of here. I wish you another good year's business."

A CHANGE has been made in the Port Hope firm of Irwin & Boyd, who have been doing a business in that town as lumber commission dealers, forwarders, shipping and general agents. The firm in future will transact business under the name of Irwin & Philp.

THE firm of Messrs. White & Moir, lumber merchants, Albany, N. Y., have dissolved partnership, and the same business will be continued by Mr. White of the old firm, his son, and Mr. E. Van Zandt, late of Van Zandt & Co., under the name of Douglas L. White & Co.

E. L. KELSEY, Detroit, Mich., operates in getting out hardwood timber and staves for foreign markets. A few days since he purchased at Milwaukee, Wis., some 9,000 cubic feet of timber and a few thousand of staves. The timber is shipped to Liverpool and the staves to West Indies, *via* Green Bay and Montreal.

THE President of the Winnipeg Board of Trade stated at a recent meeting that it was estimated that sixty or seventy millions of feet of lumber would be manufactured in Winnipeg, on Lake Winnipeg and on the Lake of the Woods. There was six millions at present in store, and no estimate was made of the amount that was likely to be imported. He had interviewed Mr. Van Horne, General Manager of the C. P. R., and that officer stated that there would be plenty of cars available for carrying lumber this summer, and that every facility would be afforded for bringing in supplies. The brickmakers estimated that 50,000,000 to 60,000,000 of brick would be manufactured.

J. A. MATHIEU, of Port Leyden, N.Y., has entered into contract with the Vulcan furnace establishment at Newbery, in Chippewa county, Mich., to work up 240 cords of wood per day into charcoal. Seventy-two retorts are also in construction at Wyandott, Mich.

THE largest trees known are probably the *eucalyptus amydalina*, or "peppermint tree," growing in the Dandenong district of Victoria, Australia, which is said to measure 370 feet to the starting point of the crown, and 417 feet to the top, and another specimen of the same species, is mentioned by Baron Ferdinand von Muller as having attained the height of 480 feet.

THE *Timber Trades Journal* says that a considerable number of American doors has been received at Newcastle-on-Tyne, forwarded *via* London. During the past few months we hear that 8,580 doors have been landed. It is stated that this importation has had an unfavorable effect on door-making in the district; although the foreign goods are scarcely so heavy as the doors turned out from the local joinery establishments, they are calculated to suit all ordinary requirements.

THE Kingston *Whig* says that Mr. Peter McLaren has been in that city. During last winter he kept up thirteen shanties, and his cut of timber is hence very large. He succeeded in getting his logs, with the exception of about 1,000, to the streams. The season in Ontario has been one of the worst known, but in Quebec there was plenty of snow. The demand for square timber is reported to be good. Mr. McLaren will send all his to Kingston for rafting and towing down the St. Lawrence.

Messrs. R. & G. Strickland, of Lakefield, the purchasers of the Dominion Bank limits in the County of Victoria, Ont., have taken out during the last winter 6,000 pieces of timber, and logs to the extent of ten and a half millions of lumber. It is estimated that this is about a tenth of the production of the whole limit. Messrs. R. Dobell & Co., of Quebec, after examining the timber, purchased the whole lot at prices more than five cents a foot above their last year's sales, and they say that the quality is equal to any timber they have examined this season. Messrs. Strickland have been offered $16 a thousand for their merchantable timber. They have been shipping by Toronto, but next season they hope to ship by the Midland Railway, owing to the contemplated completion of the Sault Ste. Marie branch.

PLANTING FOREST TREES.

The Buffalo *Lumber World* recently received a letter from Mr. J. A. Hubbard, of North Limington, Me., in which he mentions an instance which is so good an illustration of both the feasibility and the profit of timber culture, that we give it here. It seems that sixty years ago a certain thirty acre plot of land in Brownfield, Oxford county, Me., was cultivated soil, having neither tree nor bush on it. Twenty-five years ago it was purchased by Aaron McKeney, of Buxton, Me., for $1,600, and last fall Mr. Joseph Hobson, of Saco, Me., paid $8,000 for it, calculating that it contained 1,300,000 feet of pine timber. They have already cut from it 900,000 feet, and it is estimated that there is still standing about 600,000 feet, making in all 1,500,000 or an average of 50,000 feet per acre—all grown within sixty years, and standing within a quarter of a mile of the Saco river. These are cold facts and can readily be verified by application to any of the parties concerned. In the face of a case like this, it would be folly to deny that pine can be cultivated with profit, and the same is true to a still greater extent of hardwood timber, especially black walnut. The great difficulty is, that the returns are necessarily very slow, and the money invested is locked up for a number of years, but there are few investments which will be any safer or yield larger returns in the end.

But it is not by private enterprise alone that this work of raising new forests to take the place of those removed, should be carried. It is a matter not merely of local, but of national importance. Our law-makers might better busy themselves in encouraging timber cultivation than in wrangling about the appointment of a custom-house official, the distribution of post-offices, or the policy of the Government at Timbuctoo. Why should not a "Department of Forestry" be created which should have the sole duty of conceiving and putting into practice measures for the conservation and restoration of our forests? When the people and their representatives become awakened to the importance of the matter, we may hope to see such measures taken as will result in a renewal of our woods, with all their attendant advantages.—*Buffalo Lumber World.*

HAMILTON.

The *Spectator* has the following account of the Hamilton timber trade:—Hamilton is one of the chief ports on this lake at which square timber is received from the back country and shipped to the sea coast. Some timber has already arrived at the booms of the Great Western and Northwestern railways. The timber already here belongs to Messrs. Flatt & Bradley, of Hamilton, and Murphy, of Quebec. The Wellington, Grey & Bruce branch of the Great Western, and the Georgian Bay branch of the Grand Trunk bring the larger quantities. The Grand Trunk timber comes from about Wiarton. Flatt & Bradley began rafting operations lately. The quantity of timber that will come to Hamilton this year will be less than half the quantity handled last year. The timber will go down to the sea in rafts, very little going by vessel. Staves will be shipped in greater quantities than last year. The business of last season was larger. Thirteen rafts and twenty cargoes of square timber, about 1,600,000 cubic feet, were sent down, besides a raft of spars and masts for Boston. In addition to timber shipments, several cargoes of pipe and West India staves were shipped for the English market. The total value of these shipments exceeded $600,000. The railways delivering the timber received $35,000 for freights, and the cost of making up the timber into rafts for towing to Quebec was between $30,000 and $40,000. The past winter was such an open one that but little timber was cut, and thus the shipments fall off, but on account of the increase in the quantity of staves, business for vessels will be better in that line. Freights are dull, and the only charter reported by Hamilton parties is from Lake Erie to Garden Island at a figure lower than last season's rates.

HEMLOCK LANDS.

The Chignecto *Post* says:—There can be no doubt but it is a bad policy for New Brunswick to sell these lands to manufacturers of tanbark extract. There is a limit to the quantity of such bark in the Province. It ought to be saved. New Brunswick is placed in a position to do the tanning for the Dominion. None of the western Provinces have much hemlock, but the Far West will produce great quantities of hides. The rich pasture lands of British Columbia and of the States further east than there are destined to feed the herds and flocks, which will supply meat to Europe. No doubt the exportation will be largely in the shape of dead meat, fresh and in barrels. The hides should be tanned in Canada, and where so conveniently as in New Brunswick? But it will not take long for men like the Millers, and all credit is due them for their energy, to strip our forests of the hemlock bark, and leave the trees, scattered through the woods, a temptation to fire. Whatever may be the motives of Mr. Sayre and his friends in resisting the sale of the lands, there can be no doubt that great care should be taken not to allow our Province to be stripped of her wealth, for the sake of the trifle that is gained.

THE DESTRUCTION OF THE HARDWOOD FORESTS.

There is growing conviction that the hardwoods of the country have not been estimated at their real value by the owners of lands. Deciduous timber mostly grows on high and dry lands that are fit for agricultural purposes. In all new districts it has been the custom from the earliest settlement of the continent to chop and burn the timber in order to clear the land so that the forest land might be converted into fields. The custom has been maintained too long in nearly every locality in the United States and Canada, with perhaps the exception of some of the remote sections of the south. Since railroads and navigation have been extended, there is scarcely a section so remote from market but that the hardwood products of the forest can be made merchantable if the proper means is taken. There now seems to be no excuse remaining for the indiscriminate slaughter that is made of hardwood timber in some sections of the northern timber bearing states. It is time that in nearly all the northern states, especially in Michigan, Wisconsin and Minnesota, a better appreciation and economy of the hardwoods became the rule. In Ohio, Indiana and southern Michigan, farmers who own a fine patch of timber know what it is worth, for the reason that it has a certain merchantable value. Wherever oak, ash or walnut grows, and railroads are near, there is no question as to their value. But in northern Michigan and Wisconsin the timber, which is of a different character, is less esteemed, and settlers who are fighting hard with rigorous circumstances, look upon the thick bodied and stubborn maple, the smooth and taper beech, and the glossy birch as to foes their progress, and with vengeful axe strike them down, and burn them in slash and log heaps. In doing this they little think of the value there is in the timber that they thus ruthlessly sacrifice—value that may be latent because the settler has not the time nor the money to utilize the timber.—*Northwestern Lumberman*

MICHIGAN PROSPECTS.

The *Lumberman's Gazette*, of Bay City, Mich., says:—"Notwithstanding the unprecedented high prices of lumber, and the occasional slight elevation, which has during the winter struck almost every grade of lumber on the market, not only at the great manufacturing centres, but also at the distributing points, as well as at the outer source of supply—the retail yards of the country—the demand seems to be as yet unabated, and the reports which reach us from every direction are of the most encouraging character. The outlook, therefore, judging from the present standpoint, is cheering to the manufacturer, the wholesale dealer and the retailer; and the indications point unmistakably to the fact that prices must be maintained, and that there will be no break to seriously disturb the general trade.

Tree Planting in Ireland.

In the course of a recent letter to the *Times*, advocating the above object, Mr. George Orme Malley makes the remark that "in Ireland as well as in Switzerland no soil is more suited for planting than a rocky one. The bogs of Ireland, especially the deep red bog, is deprived of surface water by a cheap system of drainage, will nourish vigorously the spruce, larch, Scotch and black Austrian firs, together with holly, laurel, and magnificent rhododendrons for undergrowth. * * * The 'nakedness of our land' in respect of foliage is its most melancholy feature, and I need not dwell on what is so well known to every practical farmer, that nothing nourishes the winter grasses or improves outlying stock so much as tree shelter, especially spruce, fir, or other evergreen or non-deciduous trees."

GILMOUR'S new mill at Trenton will be in operation in the beginning of May, with a capacity for cutting 400,000 feet in ten hours, employing 600 men and a 1,000 horse power engine with sixteen tubular boilers. A Gahena furnace will consume the waste material. The works have cost $250,000, and 200 acres of ground have been secured as piling ground. Two locomotives will transport the lumber to and fro, there being five miles of track on the grounds. Sixty dwelling houses are to be erected for workmen.

MESSRS. MCMILLAN & MCPHEE, of Alexandria, and Mr. Alex. McLennan, of Coteau, have a large number of saw logs on the river Delisle, which is daily expected to open up, the ice being very shaky. A large number of men will be employed on the drive. It is to be hoped that these gentlemen will be more successful on the river this year than they were a year ago, when after many weeks' work and the expenditure of over $2,000, a large proportion of the drive had to be left "hung up" in the rapids.

TELESCOPING A RAFT.

An exciting scene lately amused the Sunday strollers at Williamsport, Pa. Rafts were plunging through the Chute, when one lodged on a sand bar. Efforts were made in vain to dislodge the obstruction. A large square timber raft rushed into the chute, and it was evident that extraordinary good manœuvering would be necessary, or there would be a collision between the moving raft and the stationary one. The onlookers at the Beaver mills became greatly excited, and exclaimed, "By George, there will be a smash up." "They'll telescope, sure." Striking the brakers obliquely, the rapidly descending craft plunged into the one on the bar, hitting it amidships, and sending heavy timber high into the air, but, fortunately, without injuring a man on either raft. The sand-bar, now apparently not satisfied with detaining one raft, reached up and fastened upon the last disturber of its rest. Those on the boom steamboat, above the dam, seeing this, blew from their whistle an alarm of danger, for other rafts above the chute to haul in, as they knew that navigation in that quarter must cease until at least one of the rafts on the bar could be pushed out of the way. The little steamer, at the same time, hurried to the assistance of a raft that was a short distance from the mouth of the chute, and which would, undoubtedly, have entered and been wrecked but for the timely presence of this useful boat. Other rafts tied up at safe points above, thereby cutting off the interest in a visit to the chute in the rafting season.—*Northwestern Lumberman.*

SCHOOL OF FORESTRY.

Is it not about time that our Local Government did something for the protection of the timber of this Province? It is fast disappearing. Poles, ties, timber, logs, and lumber are cut in millions daily, and are being carried away, some to the front, some to the States, some nobody knows where, but our forests are disappearing. The Midland has 500 miles of railway, more or less, and it is only along the Haliburton branch that there is any timber left. What we want is that Mr. Mowat should establish a Department and School of Forestry, to protect the old forests, and to plant new ones. The Foresters should make a study of forestry, and first of all plant all the roads in the Province with trees. The roads form three per cent. of the whole area of Ontario, and this at once would be an advantage. This thing should be attended to without delay. Nearly all European Governments have State Foresters,—why is Ontario without them.—*Bobcaygeon Independent.*

FORESTRY CONGRESS.

It appears that the National Forestry Congress, to be held at Cincinnati, Ohio, at the end of this month, has been made an international affair by the appointment by our Minister of Agriculture of a commission consisting of Mr. Saunders, Prof. Brown, of Guelph, and Mr. D. Beadle, of St. Catharines. The American Forestry Association, it will be remembered, meets in the same city on April 25-29, to read and discuss papers bearing on the science.

The Presidential Arbor Day will also be observed at the same time, and Dr. J. A. Warder, the President of the Association, informs us that a site has been selected in the Presidential Grove for a tree to be planted on behalf of the Queen.

A Splendid Market.

The Winnipeg *Times* says;—"We have had experience in this land of how the National Policy is benefiting Canadian manufacturers. A few years ago, prior to the present tariff, Minnesota, Wisconsin, and Illinois supplied us with carriages, cutters, wagons and farming implements. We drew scarcely anything in these lines from the eastern provinces. To-day, Ontario manufactories are so crowded with work of this description for this Province and the North-west that in some cases, it is said, it will take a good part of the summer to fill the orders; and this is in addition to the very large supplies already coming to hand under the tariff. The Canadian manufacturers have secured a splendid market here, of which they have not been slow to avail themselves.

LUMBER WANTED.

50,000 Feet Tough White Oak, 50,000 Ft. White Ash, 50,000 Feet Rock Elm, all first quality; quote price at Ayr station; to be delivered by August, 1882. Specifications furnished on application.

Ayr Agricultural Works,
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Timber Limits for Sale.

I offer Timber Limits Nos. 94, 102, 144, 145, 157, 163, 176 and 182 on the North Shore of Georgian Bay, for sale either "en bloc" or in single Townships of 36 square miles each.
GEORGE J. THOMPSON,
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Timber Limits with Mill,
FOR SALE.

One hundred and fifty-six square miles at Garden River, (near Sault St. Marie, Ont.) Splendid pine timber. One of the most compact and best limits in Canada.
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SASH, DOOR & FURNITURE FACTORY,
Situate on CANAL BASIN, OTTAWA.

Apply to PINHEY & CHRISTIE,
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PLAINING and TURNING done with Despatch. For particulars address:
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Manufacturers of all Descriptions of
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ADAM McKAY,
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Steam Engines and Boilers,
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Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19
144 Upper Water Street, HALIFAX, N.S.

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The Lightest, Cheapest and Most Durable Cant-Dog in the World.

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A FOREST DEPARTMENT.

Our readers will be interested in the following extract from the annual report of the Commissioner of Agriculture and Arts, for the Province of Ontario, being part of the report of Mr. Wm. Brown, Professor of Agriculture, and Farm Superintendent of the Ontario Agricultural College and Experimental Farm at Guelph :—

My introductory subject this year is, Our School in relation to the cultivation of Trees in the Province; as, although I have in previous reports endeavored to give some idea of its immense value, no definite suggestions have been made, nor any future work made clear.

The general importance of the subject, and its special application to Canada, is necessarily our first consideration, but it is one that has been so ably handled by evidence before the recent Agricultural Commission, that little more is necessary to impress its political standing upon the Government. The great points of trees or no trees, of retained moisture or rapid evaporation, of irregularly or regularly distributed rainfall, of unchecked storms or amelioration, of more or less temperate temperatures, and of the secondary but telling ones of ornament and cropping revenue—all go to make up a chapter of keen interest in our yet but short history as a nation.

Were evidence needed either to convince or stimulate us to action, the fact of what is being done in the conservation and replanting of forests in other countries should awaken both our pride and deep interest, as such lessons are plentiful in India, Australia, and the neighbouring Republic. There, Forestry is a profession and a Governmental department, systematically conducted by able officers, who are liberally supplied, first, in the item of experiments, and then in the establishment of extensive re-clothing of lands chosen by virtue of judgment based upon these and other known facts acquired by experience, or as shown by Nature herself.

When we desire to bring this matter right home to the farmer and his son here, the story takes seven distinct heads :

1. Shelter for crops.
2. Shelter for grazing animals.
3. Shelter for dwellings.
4. Regulation of temperature.
5. Regulation of rainfall.
6. Ornamental purposes ; and
7. As a cropping investment,

The area and value of the forest lands of Canada are still of great magnitude ;—indeed, of such magnitude that all the reliable information we possess from the brief notes of surveys stands as evidence of our ignorance of its variety, wealth, and extent, because any survey partakes so much of the character of straight-line testing that whole blocks of hundreds of acres of many kinds of our best timber lie untouched and unknown—at least to Government. It is surely within the scope of a reasonable outlay, and not many years' work, that the country should hold one map showing the principal tree crops on every surveyed lot, as well as on every outlined township, district, and limit. While we know intuitively that we are wealthier than we appear to be, it will give us no better standing in the world's market to make a story about it without actual inspection. Besides, when we talk scientifically, as we must do, in respect of forest influences upon many things ere practice goes afoot, it is most material to be thoroughly familiar with the existing condition of our forests as regards first, second, or any subsequent natural growths, and how far they are likely to subserve the ends in view.

The requisite proportion of tree surface to that under agriculture is another of the studies yet little understood by scientists, and cannot, so to speak, be handled practically with any precise measure of reason until further experiments point to safe data; but, from the extreme of overclearing on the one hand, to that of too much forest on the other, there is safe ground for *no delay* on the part of any Government. Of course this would bring up the allied point of what parts of the country should be conserved and what parts replanted, subject to the regulation of appropriate positions and adaptability of soil and climate in each particular example.

It should be one of the particular duties of the Professor of Aboriculture to educate the students of this Institution in regard to the suitability of certain kinds and *forms* of trees for special purposes—whether for field clumps, shelter belts, road-side shade, neighbourhood of dwellings, or for more extensive planting—in addition to the management of them in all their detail from the seed-bed, transplanting in the nursery, preparation of land for planting, their annual maintenance, thinnings and their value, enemies to and diseases thereof, to the grazing of replanted lands, and the ultimate realization of the matured crop.

Thus should we be in a position to advise our Legislatures on the great national problem of the special and general conservation and replanting, by which it would be shown that enclosing, draining, regulation of fires, animal trespass, and supervision stood as items of public expenditure of the first class, so that one of the first of their duties is the establishment of Forest Departments, and the appointment and duties of a Conservator of Forests for each Province.

THE ELECTRICAL GIRL WHO LIVES AGAIN.

(*London (Can.) Advertiser.*)

It is now about three years since the *Advertiser* published the story of the Electrical Girl in the township of Romney. The tale passed through nearly all of our exchanges, and occasionally re-appears now. The story in brief was that the girl was so highly charged with electricity that she could not handle any article of steel. She was a veritable magnet, and needles, knives, etc., would cling to any part of her person. The publication excited a good deal of curiosity concerning the girl, and many persons called upon her at her home. Recently she was taken ill, and the local physicians were called in. She described her peculiar sensations. In her knee joints severe pains were felt, shooting at intervals, as though a battery were at work and giving her intermittent shocks. The knee began to swell, and the pains spread to other parts of her body, generally becoming permanent in her joints. All the doctors could do was of very little avail. Occasionally slight relief would be obtained, but in wet or murky weather the pains would redouble in violence. Finally when the doctors had given up treating her, and regarded her simply as a physiological wonder, a tramp called one day at the house. While he was being given a meal he was told about and asked permission to see the girl. He had been a soldier in the Crimean army, and while working in the trenches around St. Petersburg he contracted rheumatism in its most severe form, and noticing that the girl's symptoms agreed with his, he pronounced her to be suffering with rheumatism. The parents of the girl were overjoyed, but were again cast down as they recalled the fact that the doctors said they could do nothing for her. "Why," said the tramp, "do you want to bother the doctors about rheumatism? Get a bottle of St. Jacobs Oil. It cured me, and will cure any case. I know plenty of old soldiers who have been cured of chronic rheumatism by the use of St. Jacobs Oil." The advice was taken, and the so-called Electrical Girl is to-day prepared to add her testimony to the thousands of others who bear witness to the efficacy of the Great German Remedy.

To the Editor of the London (Can.) Advertiser.

DEAR SIR,—As you have given me a good deal of notoriety by writing of me as the Electrical Girl, I thought I would write to tell you of my condition. * * * (Here follows the recital which is summarized above.) My parents obtained a bottle of St. Jacobs Oil, and to its effects I owe the fact that I am now able to walk without pain, and the swellings in the joints have all disappeared.

Yours very truly,
SUSAN J. HOFFMAN.

GROUND SHAVINGS.

Our New York correspondent writes regarding the establishment of D. C. Newell & Sons, on Nineteenth Street and Eleventh avenue, where a mill is run for the purpose of grinding shavings for horse bedding, packing, etc. Mr. Newell, who runs the Hudson River Planing-mill, where this rather novel business is carried on, is an old lumberman of 40 years' experience. This gentleman, a few years ago, invented a machine for grinding shavings, and an experimental test produced the most gratifying results, and the experience after four years' use furnishes an important contrast to the facts before the plan was employed. Instead of paying some five dollars per day for the removal of the shavings, the mill brings in a revenue of from $30 to $50 daily. The capacity of the mill is 10 tons per day, and the ground shavings find a ready market at $6 per ton. The product of the mill however, does not average the number of tons given as the full capacity. There are some 80,000 horses in the city of New York, to say nothing of outside points, and if the use of the shavings for bedding was pushed, there is a wide field for operating. One of the advantages claimed for shaving is the absorption, by the wood acids, of all odors; hence the shavings are used to some extent as a disinfectant, and decayed matter when covered by them is rendered unoffending. Ground shavings are also used for bedding for cattle and swine, also in stock cars, and are held to be better than sawdust for ice houses.—*Northwestern Lumberman.*

THE FUEL PROBLEM.

If it be true that the fuel problem has been solved for Dacota, as below affirmed, we may consider it as solved also for the Canadian North-west, in extensive regions of which lignite and coal exist in quantities larger than the public are generally aware of. The St. Paul *Pioneer Press* says :—"General Manager Haupt, of the Northern Pacific, is now satisfied that the fuel problem of Dacota has at last been solved. The feasibility of burning the lignite coal of the Bly Mines has been amply demonstrated. That it can be used for all heating purposes is no longer an equivocal proposition. Superintendent Hobart, of the Dacota division, is testing the coal in a base burner. One day recently, with a high wind and unusually low temperature, the room was perfectly warmed with the consumption of between four and five scuttles of coal in the twenty-four hours. The same amount of the best Pennsylvania coal has often been consumed under like circumstances, showing a saving of at least 55 per cent. ; when the difference in cost and weight is taken into account, this is much cheaper than wood."

Score Another for Cedar.

The cities of St. Paul and Minneapolis are agitating the question of street pavements, and naturally desire to obtain the best material for the purpose. The *Pioneer Press* commissioned a man to visit several cities and inspect different kinds of pavement with a view to ascertain the relative durability of stone, macadam and wood. Pains were taken by this commissioner to obtain the opinion of experienced men in regard to the different kinds of pavement, and the result of the investigation is that cedar blocks are considered the best wherever they have been used. In St. Louis there are over 300 miles of macadam pavement, and it is alleged that it alternates between the most horrible mud in wet weather and the most insufferable dust in dry weather. In many places it was found that macadam pavement was universally condemned.

MR. E. HALL, of Detroit, Mich., is going extensively into lumber operations in the vicinity of Farwell. His intentions are to construct a railway and put in some 300,000,000 feet of logs on the Tobacco river, some four miles south of Farwell. A dam is being constructed for the purpose of floating out the logs. Extensive arrangements are likewise being made through many parts of the Saginaw valley for summer logging.

THE raging Ohio seems to be making an effort to outrival the mad Mississippi in the commotion and destruction it is creating. A large number of rafts of logs have been swept away on the turbid tide, at Cincinnati, and other points. There has also been considerable damage on the Ohio's tributaries.

A DEPUTATION has visited Ottawa in the interests of American manufacturers to oppose the proposal lately made by manufacturers of cooperage materials in the western part of the Province of Ontario in favor of the imposition of an export duty on elm, basswood and red oak bolts, bolt logs and hoop logs.

THE Victoria, B. C., press urges the importance of the Dominion Government immediately reserving the lands and timber adjacent to the southern passes of the Rocky Mountains to prevent them from falling into the hands of the Northern Pacific Railway, which could then create a monopoly in timber, and force the Canada Pacific syndicate to pay enormous prices for timber.

THE *Monetary Times* says that a London Joint Stock Company, with a capital of £100,000, has purchased the Mille Vache property, opposite Rimouski. It consists of 80,000 acres, with a frontage of ten miles on the River St. Lawrence, The company intends to carry on a general lumber and pulp business, and will build wharves, and provide facilities for loading vessels.

IT is said that the dock labourers at Oswego have made a rate for unloading lumber by which vessels of 300,000 feet capacity are charged more than vessels of smaller capacity. This will affect only a few vessels, most of which are in Toronto harbor, and it looks as if the discrimination was ill-grounded. It is surely better for the laborers to have a large cargo to work at than a small one.

NOTICE has been given of an application for letters patent for "The Rainy Lake Lumber Company, Limited," with a capital of $350,000, in hundred dollar shares, and its chief place of business at Winnipeg. The first directors of the company are to be Messrs. Hugh Sutherland, James Robert Sutherland, Henry Norland Ruttan, Peter Johnson Brown, William Buckingham, John Ross and Simon James Dawson.

THE *Northwestern Lumberman* says that a New York firm has cut up 50,000 feet of oak during the past three months for Peter Cooper's glue factory. Frames are made of it upon which the glue is placed for drying. If this strikes the average reader as being a pretty big story, he should bear in mind that the building where the glue is manufactured occupies two acres of ground.

THE Kingston *News* says that there is a great deal of timber to be carried this year—enough to warrant good rates and to make vessels quite independent as far as chartering is concerned. All the vessels that have a stern port will find timber to carry, and at good paying figures, too.

BRIGHT'S DISEASE, DIABETES, KIDNEY, LIVER OR URINARY DISEASE.—Have no fear of any of these diseases if you use Hop Bitters, as they will prevent and cure the worst cases, even when you have been made worse by some great puffed up pretended cures.

"WHAT EVERY ONE SAY MUST BE TRUE."—And every one who has tested its merits speaks warmly in praise of Hagyard's Pectoral Balsam as a positive cure for all throat and lung complaints, coughs and colds, sore throat, bronchitis, and incipient consumption.

People have no more right to become dyspeptic, and remain gloomy and miserable, than they have to take poison and commit suicide. If the stomach becomes weak and fails to perform its functions, Burdock Blood Bitters will speedily remedy the trouble.

DYSPEPSIA, that all prevalent disease of civilized life, is always attended with a disordered sympathetic system and bad secretions, and no remedy is better adapted to its cure than Burdock Blood Bitters taken according to special directions found on every bottle.

A POPULAR REMEDY.—Hagyards' Pectoral Balsam is one of the most deservedly popular remedies for the cure of coughs, colds, sore throat, asthma, whooping cough, croup, bronchitis, and all pulmonary complaints. For sale by all dealers.

A REAL NECESSITY.—No house should be without a bottle of Hagyard's Yellow Oil, in case of accident. There is no preparation offered to suffering humanity that has made so many permanent cures, or relieved so much pain and mercy. It is called by some the Good Samaritan, by others the Cure-all, and by the afflicted an Angel of Mercy.

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

Chips.

THE Port Hope *Times* says that Capt. Eccles has refused to carry 10,000,000 feet of lumber from Cobourg to Oswego at 90c. per M. He wants $1.

IT is stated that Boston capitalists have purchased the hemlock bark on 28,000 trees in the Adirondack region, New York, and will strip the trees and carry off the product.

ROCKFORD, Ill., has a wood feather manufactory, where basswood is shaved into strips and medicated for filling bed ticks and pillows and other purposes, the article being really superior for such uses.

SEVENTY-FIVE million feet of hemlock lumber has been cut at Williamsport, Pa., this year, as against 15,000,000 feet last year. Pennsylvania lumbermen are just beginning to see the value of this kind of timber.

THE Chippewa Lumber and Boom Company paid out for labor in the mill and at the Paint Creek dam, from March 1, 1881, to the same date this year, $140,896.14, and $100,000 for labor on logs—a total of $240,896.14.

POPLAR from the vicinity of Sault Ste. Marie is being cut for shipping away to pulp mills. There is a large growth of poplar in the Upper Peninsula of Michigan that will come handy for change to the farmers who shall clear the land in that rugged country for some time.

THE auditor of a railroad in Wisconsin, who has been up north through the logging country, reports that notwithstanding the estimate that the log crop is only a two-thirds cut, the large number of new men who have entered the business will make the money receipts for lumber greater by one-fourth than during any previous year in the history of the State.

A LARGE mill for the manufacture of wood pulp is about to be built upon the line of the Quebec Central R. R., near Cookshire, Que. The location is on the Eaton River near its junction with the St. Francis, in a section where suitable wood is abundant. Mr. Wm. Angus, late of the Canada Paper Company, is understood to be the capitalist interested.

IT is represented, says the Battleford *Herald*, that a large lumbering establishment is to be started at Green Lake, north of Carleton, the lumber from which is to be run down the Shell river to the Saskatchewan. Mr. O'Keefe is on his way out to survey the limits, which will be in two blocks, composing one thousand square miles in all. The owner of the enterprise is said to be a Toronto man.

THERE is a German colony at Jacob's Town Mackinac county, consisting of 70 families. They, a few months ago, began operations in a dense wilderness of heavy timber, selling the forest growth as they cut it away in the process of clearing the land, instead of making a promiscuous slaughter of it, and burning it by wholesale. There are now 140 acres cleared, and the colony has on hand 25,000 cedar posts, 2,000 telegraph poles and 2,000 hardwood logs.

THE Saginaw *Currier* says: A gentleman in this city purchased a farm on the Cass river recently, on which were several black walnut stumps. By some means while digging he discovered some buried trees and has since taken out considerable walnut, which, when cut up, he has disposed of at the rate of $60 a thousand. The reporter was shown a piece yesterday from a tree that was taken out nine feet below the surface. It is supposed that the river changed its course somewhat years ago and that these fallen trees were imbedded in the deposits that filled up the old channel.

Messrs. R. & G. Strickland have returned from the personal supervision of their timber and lumbering operations on their new limits, having straightened uptheir winters' operations. They have take out over six thousand pieces of square timber and sufficient saw logs to make over ten and a half million feet of lumber. This is less than a tenth of the quantity which their limits contain. We are assured that these excellent limits will stand such extensive operation for another ten years at least. The Messrs. Strickland' have been offered already 4 cents per foot over and above last year's price for their square timber. They have as fine a quality of timber as was ever taken to Quebec.

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TRADE MARK.

THE GREAT GERMAN REMEDY.
FOR
RHEUMATISM,
Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,
Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

No Preparation on earth equals ST. JACOBS OIL as a *safe, sure, simple* and *cheap* External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

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Is a Sure, Prompt and Effectual Remedy for *Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Spermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs.* The experience of thousands proves it an INVALUABLE REMEDY. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is *the cheapest and best.* ☞ Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at 50 cts, per box, or 12 for $5, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont,

Sold by all Druggists in Canada.

If you are a man of business, weakened by the strain of your duties avoid stimulants and use Hop Bitters.
If you are a man of letters toiling over midnight work, to restore brain nerve and waste, use Hop B.
If you are young and discretion or dissipa ried or single, old or poor health or languish ness, rely on Hop
suffering from any in tion; if you are mar young, suffering from ing on a bed of sick Bitters.
Whoever you are, whenever you feel that your system needs cleansing, toning or stimulating without intoxicating, take Hop Bitters.
Thousands die annually from some form of Kidney disease that might have been prevented by a timely use of HopBitters
Have you dyspepsia, kidney or urinary complaint, disease of the stomach, bowels, blood, liver or nerves? You will be cured if you use Hop Bitters
D. I. C. is an absolute and irresistable cure for drunkeness, use of opium, tobacco, or narcotics.
If you are simply weak and low spirited, try it! It may save your life. It has saved hundreds.
Sold by druggists. Send for Circular.
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HARDWARE MERCHANT,
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BELTING, FILES, BABBIT METAL, CHAINS, ROPE, and
LUMBERING SUPPLIES.
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FOR LUMBERMEN!
Poleroad Tramway Cars
Will Carry 2,000 Feet of Hardwood Lumber per Load

Drawn with one span of horses, either summer or winter, on Round Pole Roads, which are cheap and speedily built.

The woodwork of the Car can be built by any handy man in a couple of days. The undersigned supply the ironwork complete, including bolts and washers and a diagram of car.

The wheels are adjustable on its axles to accommodate itself to any bend in the pole. The weight of ironwork is 2,250 lbs. Price on application to

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Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills.
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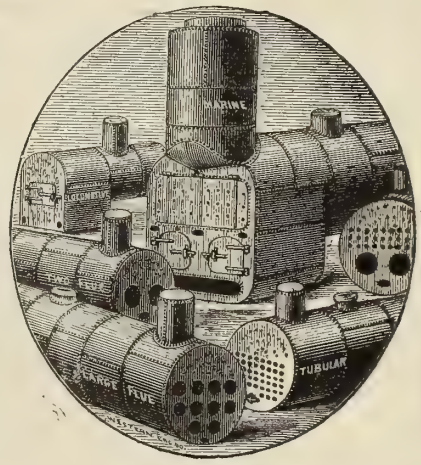

Portable Boilers for Threshing Machines, Shingle Mills, etc., furnished on short notice. All Boilers tested by cold water pressure to 150 lbs. to the square inch before leaving the shop,

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BOUGHT, SOLD, OR TAKEN IN EXCHANGE FOR NEW WORK.

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Cooking, Ship, Parlor & Office Stoves
MILL CASTINGS
Ship Windlasses, Capstans, and Ship Castings of all kinds,
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MANUFACTURERS OF ALL KINDS OF
Steam Engines
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Ships Windlasses, Iron Capstans
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BRASS CASTINGS.
Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.
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EPPS'S COCOA
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"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*
Made simply with boiling water or milk. Sold in packets and tins only (½-lb. and lb.) labelled
JAMES EPPS & CO., Homœopathic Chemists,
London England. 1L14

Market Reports.

OTTAWA.

From our own Correspondent.

April 7th.—People here are now anxiously awaiting the opening of the Chaudiere and other mills in the vicinity. The numerous repairs and improvements are about completed, and everything is in readiness for the arrival of the first logs. The beginning will be made earlier this season than last; two or three weeks' time will witness the mills in full operation. The hiring of men has not, however, yet begun, this being generally done after the

BREAKING UP OF THE SHANTIES

and arrival home of the hands. Wages this year will be as high, if not higher, than last, and more difficulty will be experienced in engaging the full complement of men, as many have left for the States. This will be somewhat severely felt by our lumbermen, as a vast amount of work remains ahead. No doubt the coming summer will be the liveliest in this interest seen since

THE MEMORABLE YEARS

of '69, '70 and '71, when lumbering operations were carried on to their fullest extent. Of the total cut of logs and square timber on the limits on the Upper Ottawa the present season, a pretty correct estimate can now be made. It is generally conceded by parties who are familiar, that the cut this winter will be as large again as as that of last year. 1,300,000 pieces passed the Quyon boom during the summer of 1881. This is the point where the

LARGEST NUMBER OF LOGS

pass, coming to Ottawa and vicinity, the operations on this side of that point not amounting to anything great. It requires seven of these logs on an average to make a thousand feet of lumber, so an estimate can be made by this of the amount of lumber cut by the mills here and neighbourhood. It is calculated that there will be manufactured this year about two million and a quarter pieces. Fully 750,000 pieces were

STUCK IN THE OTTAWA RIVER

and its tributaries the past summer, and these, together with this year's cut, will without doubt be safely navigated to their destination, thanks to the many and valuable improvements lately and continually being made by the Upper Ottawa Improvement Co. A new firm has been operating on the Kippewa the past winter, that is, that of W. C. Edwards & Co., of Rockland. They have also taken out timber on the Dumoine, Blanche, Gatineau, Castor and Nation Rivers. Their

CUT ON THE UPPER OTTAWA

limits will amount to about 50,000 logs. Shanties will break up about the fifteenth of next month, that is as soon as the lakes open. Operations are now being carried on as lively as possible. There is plenty of snow and ice on the Kippewa yet, and most other places. Men are now being engaged for the drive, the wages paid this year being from $20 to $35. No sales of logs have been reported lately, which is something unusual.

TORONTO.

From Our Own Correspondent.

April 10th.—Lumber shipments by vessel to American ports have now fairly begun, five cargoes having already left here for Oswego, and six more vessels on the way loading, and the average quantity on each has been something like a quarter of a million feet. The demand for all kinds of pine lumber from sound common to clear is excellent, and for desirable dry lots during the earlier part of the season, prices are likely to advance. Good, dry car sheathing or flooring strips are hard to obtain, and the prices for flooring from the yards have advanced from $2.50 to $3.00 per M., although, owing to the carpenter's strike, building has for the present come nearly to a stand, and no work in the architects' offices offering. No doubt this may be partially accounted for in this way, any persons entering into building operations naturally consult with their architect, and as it was well-known before hand that labor strikes were likely to be the order of the day for some time to come, they were advised to postpone their asking for tenders until the labor question was settled. Speculative building, such as we have had going on here for the last two years, has received a sudden check, the stringent Lien Act passed by the Ontario House at the last session has caused loan companies to be extremely cautious as to whom they lend money to, and none but those having a clean record will be able to obtain advances, unless they have other real estate to offer as security, and it is much better for our city that such is the case, as large numbers of houses have been thrown together (I think this is about the right term) during the last three years, and a few years hence the question will be asked, Where are they? Of course this does not apply to all who have been operating, some of them make a point of doing their work substantially, such men will still find plenty of room for capital and energy.

In continuing my list of wood-working factories, I would next call your attention to the large building on the corner of Sheppard and Richmond streets. This factory is not controlled by any single firm. Steam power is furnished to a large number of various trades throughout this large building, but there are two firms who come prominently to the fore, 1st, the firm of R. Philp & Co., manufacturers of coffins and caskets. This firm does the largest business of the kind done in the Dominion, employing from 75 to 100 men, and using up from 25 to 30 M. of lumber weekly, employing a man especially and constantly in getting out new designs for mountings; and in going through the large shops occupied by this firm, and viewing the large quantities of the various sized coffins in all their different stages of completion, we get some conception of the vast numbers of poor suffering humanity who are daily passing away to their long home. The warerooms and offices connected with this firm are situated on Front Street West, near the Queen's Hotel.

The well known building firm of Moir & McCall occupy shops immediately adjoining the coffin factory, where they have all the machinery requisite for the cheapening of labour. This firm has done some of the best work in our city, and they are especially well known in connection with the building of church edifices; and all such work, after passing from their hands, would be a credit to any contractor in any part of the world. This firm employ a staff of first-class workmen, who like all the rest at present, are out on strike, and until this question of wages is settled, trade from the various retail yards will be dull.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	16 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00
B. M.	
1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M	2 50@3 00
XX sawn shingles	2 75
Sawn Lath	2 50

MONTREAL.

From Our Own Correspondent.

April 10th.—Since the date of our last report there has been considerable change in the state of the ice on the river. The ice bridge has gone and there is open water from here down to the lake, and market steamers and ferry boats are expected up to-day or to-morrow from winter quarters. There is a good deal of activity going on preparing for the opening of navigation. Imports are expected to be large, as the stocks in the yards are by no means heavy, and a large number of new buildings are about to be commenced; till then business will likely rule quiet, and by that time people will be better able to judge what will be wanted, and get it down by the first canal boats. The export of lumber is expected to be fully equal that of last year, while freights to South America are not expected to be any higher than last year, although we have not been able to hear of any engagements as yet. The first cargoes are to be sent off early in May. Prices in the yards here are firm and likely to go higher in a couple of weeks. In the meantime we continue to quote, ex yard:—

Pine, 1st quality, ₱ M	$35 00@40 00
Pine, 2nd " ₱ M	18 00@24 00
Pine, shipping culls, ₱ M	14 00@15 00
Pine, cull deals, ₱ M	8 00@12 00
Pine, mill culls, ₱ M	5 00@ 8 00
Spruce, ₱ M	8 00@10 00
Hemlock, ₱ M	8 00@10 00
Ash, run of long culls out, ₱ M	16 00@18 00
Bass, " " ₱ M	16 00@17 00
Oak, ₱ M	35 00@45 00
Birch, ₱ M	17 00@20 00
Hard Maple, ₱ M	18 00@25 00
Lath, ₱ M	1 50@ 0 00
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

Cordwood.—Owing to the advance of freights by the Q. M. O. & O. R. there has been very little cordwood coming in, and we do not expect much till navigation is fairly opened by river and canal. A brisk business is looked for all summer, the rate of freight by water being so much cheaper than railway. The demand here has improved considerably lately, although prices are much advanced and dealers here have been obliged to advance prices fully fifty cents all round. We now quote prices at the railway depot, ex cartage, as follows:—

Long Maple	$6 50
Short "	6 00
Long Birch	6 00
Short "	5 50
Long Beech	5 50
Short "	5 00
Long Tamarack	5 00
Short "	4 50

LONDON, ONT.

From Our Own Correspondent.

April 10th.—Since my last letter there is no important change to report in the lumber market of this city. It is thought, however, that the price of material and the strike for higher wages by the carpenters and other workmen will seriously affect the amount of building to be done through the summer.

All grades of lumber remain firm at last quotations, and if any change is to be noted, it may be that hard lumber is on the rise. The opinion prevails among our merchants here relative to the elm log export duty now being agitated, that it should be imposed. Shingle bolts are taxed $1 per cord, and spruce and pine logs $1 per M. feet. Elm is an important factor in our manufacturing and productive interests, and when our internal manufacturing privileges are in a measure monopolized, something should be done to protect them. I may in a future letter have something more to say on this subject.

The erection of a very large brick skating rink will shortly be commenced here. It is to be 190×80, and will be a very handsome structure.

The cedar block pavement on Richmond street will now shortly be proceeded with, and there is also a movement gotten up by a "local" newspaper reporter here to have the market square paved with the same material. The plan of the scheme is a novel one, every donor to give so many blocks, or the price of them.

Our yards are beginning to fill up again, in anticipation for the spring demand.

QUOTATIONS.

Mill cull boards and scantling	$11 00
Shipping cull boards, promiscuous widths	12 00
" " 10 and 12 in. stocks	12 50
Common boards, promiscuous widths	14 00
Scantling and joist, up to 16 ft	15 00
" " " 18 ft	15 50
" " " 20 ft	16 50
" " " 22 ft	17 50
" " " 24 ft	19 00
Common stocks	15 00
Common 2 in. plank	14 00
Cutting up plank and boards	19 00
Sound dressing stocks	18 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	21 00
¼ " " " "	21 00
1 " " " "	21 00
XXX sawn shingles, ₱ M	3 00
Lath per 1000 feet	4 50@5 00

ST. JOHN, N. B.

From Our Own Correspondent.

April 6.—The prominent feature of the period embraced in this report is the continuation of the cold, winter-like weather described in last report, enabling the lumbermen to extend their supplementary operations in an unusual degree. Conversing with some of the large operators this week, they say that they are doing better work now than at any time during the winter; the chief difficulty they have to encounter is to keep their men; like the wild geese, when the time arrives at which they usually leave camp, they think they should "be off," and become very uneasy if longer detained.

DEALS.

There are no sales of deals yet reported this spring, the views of buyers and sellers appearing too divergent thus far. Manufacturers are holding very firmly at $11 per M., superficial feet, and shippers are unable to see their way to pay such a price; much will depend on circumstances as to which party can hold out the longest.

FREIGHTS.

There was quite a boom in the freight market last week; some eleven ships were chartered for the West Coast of England or the East Coast of Ireland at 60s., and three steamships for the United Kingdom on private terms. These vessels were chiefly taken by one shipper. The market has since been quiet, with a downward tendency; we quote 57s. 6d. as about the market rate.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows:—

For Europe	3,306,000	Sup. feet.
" United States	2,213,000	"
" West Indies	96,000	"

The number of sugar box shooks shipped for Cuba is as follows:—

Sept. 1 to March 22	69,640
Since	6,432
Total	76,072

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations:—

John Black, 545, W. C. England, E. C. I., or Glasgow.
Herbert Beech, 1,061, Liverpool.
Brothers, 537, W. C. E. or E. C. I.
Kentigern, 824, Liverpool.
Maggie Taylor, 347, ——
Bonito, 599, W. C. E. or E. C. I.
Argyle, 1,222, W. C. England.
Alex. Campbell, 475, ——
Alma, 630, W. C. England.
Herlof Herlofsen, 766, ——
Oxo, 530, ——
Cedar Craft, 1,098, W. C. England.
E. W. Gale, 298, ——

ALBANY.

April 8th.—Quotations at the yards are as follows:—

Pine, clear, ₱ M	$55 00@63 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	32 [illegible]
Pine, 10-in. plank, each	[illegible]
Pine, 10-in. plank, culls, each	[illegible]
Pine boards, 10-in.	[illegible]
Pine, 10-in. boards, culls	[illegible]
Pine, 10-in. boards, 16 ft., ₱ M	[illegible]
Pine, 12-in. boards, 16 ft.	[illegible]
Pine, 12-in. boards, 18 ft.	[illegible]
Pine, 1¼ in. siding, select	[illegible]
Pine, 1½-in. siding, common	[illegible]
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	[illegible]
Spruce, plank, 1½-in., each	[illegible]
Spruce, plank, 2-in., each	[illegible]
Spruce, wall strips, each	[illegible]
Hemlock, boards, each	[illegible]
Hemlock, joist, 4x6, each	[illegible]
Hemlock, joist, 2½x4, each	[illegible]
Hemlock, wall strips, 2x4, each	[illegible]
Ash, good, ₱ M	[illegible]
Ash, second quality, ₱ M	[illegible]
Cherry, good, ₱ M	[illegible]
Cherry, common, ₱ M	[illegible]
Oak, good, ₱ M	[illegible]
Oak, second quality, ₱ M	[illegible]
Basswood, ₱ M	[illegible]
Hickory, ₱ M	[illegible]
Maple, Canada, ₱ M	[illegible]
Maple, American, per M	[illegible]
Chestnut, ₱ M	[illegible]
Shingles, shaved, pine, ₱ M	[illegible]
" 2nd quality	[illegible]
" extra, sawed, pine	[illegible]
" clear, "	[illegible]
" cedar, mixed	[illegible]
" cedar, XXX	[illegible]
" hemlock	[illegible]
Lath, hemlock, ₱ M	[illegible]
Lath, spruce, "	[illegible]
Lath, pine, "	[illegible]

BOSTON.

April 8.—The *Journal of Commerce* says that there is no change in the general situation since our last report. Everything points to a good future for the market. In New York there are many large building operations in contemplation or actually being prosecuted. In our own market builders are not far behind, and there promises to be an immense amount of lumber consumed. The only drawback seems to be in the matter of values. If lumber does not increase in price so as to discourage builders and

upset all their calculations, there will be no cause for complaint.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

CHICAGO.

APRIL 8.—The *Northwestern Lumberman* says that the feeling regarding values is peculiar, and difficult to describe. There is one prominent element in it, however, and that is firmness. The certainty of not being able to replace stocks at any less than was paid for the lumber now in the yards precludes all desire to cut rates, and prices are consequently firm as a rock. At the same time, purchasers would like to buy cargoes at a more moderate rate than that prevalent.

Receipts and shipments of lumber and shingles for the week ending April 6, 1882, includes lake receipts from January 1 to April 6th :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	38,937,000	24,915,000	39,741,000	27,120,000
1881	4,160,000	3,120,000	29,343,000	12,796,000

Receipts and shipments of lumber and shingles from January 1, to and including April 6th :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	105,328,000	39,798,000	425,448,000	157,230,000
1881	50,851,000	20,179,000	233,349,000	84,657,000
Inc.	54,477,000	19,619,000	192,099,000	72,555,000

STOCK ON HAND MARCH 1.

	1882.	1881.	1880.
Lumber	378,558,184	398,800,030	338,996,421
Shingles	162,302,900	166,010,000	152,072,000
Lath	33,426,283	41,784,270	37,132,219
Pickets	2,354,511	2,251,438	1,467,974
Cedar posts	112,088	177,304	207,362

OSWEGO, N.Y.

The market is very firm—more perhaps in consequence of the short supply and the poor assortment. New stocks are, however, arriving and we look for a very brisk trade during the next two months. The Erie and Oswego canal will be in order on the 12th inst., boats are now loading for Albany, canal freight opening at $1.75@$2.50 to New York.

Three uppers	$42 00@45 00
Pickings	32 00@35 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	12 00@14 00
Mill run lots	17 00@24 00
Sidings, selected, 1 inch	32 00@38 00
1¼ inch	34 00@38 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	22 00@30 00
Strips, 1 and 1½ inch mill run	15 00@18 00
" " culls	12 00@15 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	3 75@ 4 25
XXX, 18 inch, cedar	3 00@ 3 50
Lath	2 00@ 2 25

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@48 00
Common	20 00@22 00
Culls	14 00@15 00

GLASGOW.

The *Timber Trades Journal*, of March 25th, says :—At Glasgow the imports have been per steamships of various lines, and consist of parcels of oak billets and planks, whitewood, maple, and staves.

The public sale held at Greenock on the 21st inst., reported below, was rather quieter than usual, the trade still buying sparingly for present wants, and with little of competitive spirit.

An extra demand is generally experienced at this time of the year, especially if there has been a severe winter, but the past season having been comparatively mild, has allowed of workmen being employed with little cessation all the time, which apparently accounts for the want that is felt at present of the usual increased business activity.

Deliveries of deals from the yards at this port continue fairly good, being till present date considerably in advance of corresponding period last year. The contrast is especially marked during the first month of the year, the deliveries in January, 1881, amounting to 63,980 pieces, and in January, 1882, to 75,942 pieces.

AUCTION SALE.

On the 21st inst., at Greenock, Messrs. Edmiston & Mitchells, brokers :—

Quebec yellow pine timber, 65 c. ft. av. per log, 1s. 9d. c. ft.
Do., 40 c. ft. av. per log, 1s. 7d. c. ft.
Do., 60 " 1s. 7d. "
Do., 36 " 1s. 4½d. "
Quebec red pine, 30 c. ft. av. per log, 1s. 2d. c. ft.
" elm 35 " 1s. 7d. "
Sawn pitch pine timber, 35 " 1s. 4d. "
" 2 logs figured, 2s. "
Quebec 3rd yellow pine deals—
16 ft. 11×3 1s. 2½d. "
15 " 11×3 1s. 2d. "
12 " 11×3 1s. 2d. & 1s. 1½d. "
15 & 16 " 7/22×3 1s. 2½d. "
9 to 14 " 7/22×3 1s. 1½d. "

LIVERPOOL.

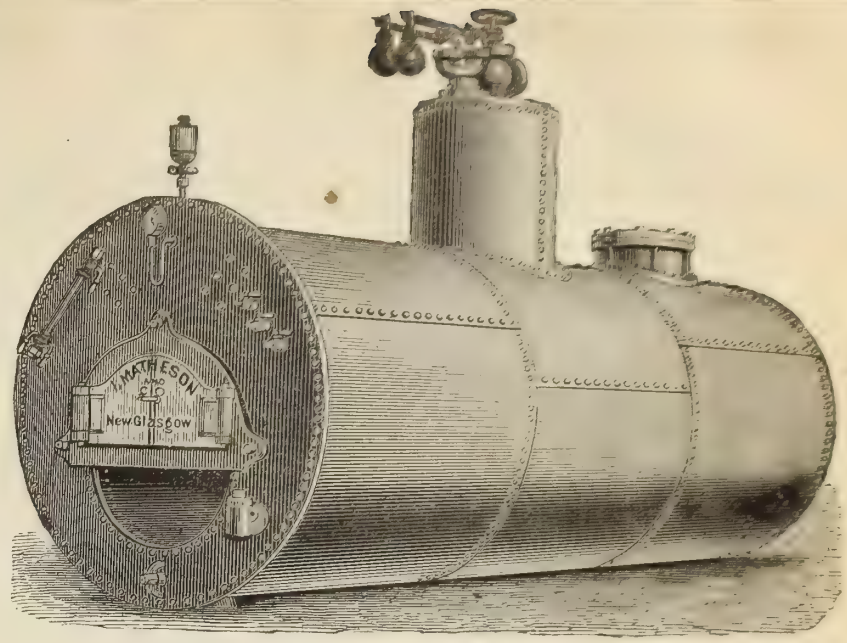
The *Timber Trades Journal*, of March 25th, says :—The past week has been a very quiet one, and, had it not been for the auction sales of mahogany and whitewoods, it would have passed over quite uneventfully. The imports continue light and consist principally of pitch pine timber, most of which, however, is on contract with the local merchants.

KITCHEN FLOORS.

To keep the kitchen floors clean is very troublesome. Grease will spill upon it and make a stain that requires much labor to get out. Bare boards are soon soiled, and a carpet, when it is not beyond the reach of the housekeeper collects too much dust to be desirable. Where food is prepared, and where on the farm the butter is churned and packed dust is very disagreeable and objectionable. How to get rid of it and the so very easy made stain is a troublesome problem. A painted floor is perhaps the most comfortable and the cheapest ; an oilcloth covering the whole floor is much more costly, and does not wear any better than the paint, and is no more easily cleaned. On the whole we would suggest a good painting to the anxious housekeeper troubled with a kitchen floor that requires frequent scrubbing to keep it clean and white. When a house is built the kitchen ought to receive more consideration than all the rest of the house. We would build the kitchen, and then put on the rest of the house. The floor should be of hard wood, sawn purposely into three inch strips, and very well seasoned, kiln dried, if possible, so that there should be no cracks for dust. It should then be well oiled, and then a single washing with hot water and soap and a woollen scrub cloth will keep it quite clean. Where this cannot be done the floor should be painted a color as near to the dust as possible, a sandy brownish yellow, made of brown umber, lightened with chrome yellow, a very little is just the right shade ; neither too light nor too dark. With lead, and oil, and plenty of dryers a paint may be made that will dry in a night so that a few boards may be laid down to walk upon until the surface is quite hard. A floor we know of very well so painted five years ago is to-day in excellent condition and promises to last five years more. The cracks around the base and in the floor should be filled with plaster of Paris and oil which sets as hard as a stone and closes up all harbors for ants, roaches, croton bugs and other bothering pests of the housekeeper.

Petre v. The Guelph Lumber Company.

Mr. Justice Ferguson gave judgment on Saturday, April 8th, in several cases heard before him at the Fall Sittings of the Chancery Division. Among them was a celebrated case, which lasted 15 days, that of Petre v. The Guelph Lumber Co., in which Mr. Edward Blake, Mr. Bethune, Mr. McCarthy, Mr. Walter Cassels, and other counsel were engaged. The defendants besides the company were Mr. Guthrie, M. P., Mr. McLean, of Guelph, and others. This action and others brought by Messrs. Stewart & Inglis were brought to have it declared that they were induced by misrepresentations to become shareholders in the company, and for relief accordingly. Mr. Justice Ferguson dismissed the bill in each of the three cases with costs, delivering a long judgment, in which he gave an elaborate review of the evidence and commented on it very fully.



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Wholesale Lumber & Timber Dealers
39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut
And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.
Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally. L7

ESTABLISHED 1874.
THOS. GRAHAM
Manufacturer of Every Description of
FILES and RASPS

HAND CUT FILES made from the Best Refined English Cast Steel and *Warranted Equal* in every respect to the best English *brands*.

NEW FILES neatly put up in labelled boxes for the trade ; to whom *bottom figures* will be quoted.

Old and Worn-out Files *re-ground* and *re-cut* by hand, and made equal to the New File for use, at prices that will effect a great saving to all consumers of Files.

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CASTINGS of every description in Brass and Iron.
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STEAM FEED for Circular Saws.
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FAMOUS INTERNATIONAL

BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

In ordering, mention the CANADA LUMBERMAN. 1L19

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MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.
HOYT'S CELEBRATED LEATHER BELTING.
COTTON BELTING, for Flour Mills. &c., Superior Quality.

DISSTON'S CELEBRATED MILL SAWS.

Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 1L21

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594, 596, 598, St. Joseph St.

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Manufacturers of

LEATHER BELTING

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Lace Leather,

Mill Supplies, &c.

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JAS. ROBERTSON & Co.

TORONTO, ONTARIO,

Manufacturers of Every Variety of

Circular, Mill and Gang Saws

☜ SAWS REPAIRED ☞

Emerson Pattern & Lumberman's Clipper

INSERTED TOOTH SAWS A SPECIALTY.

Every Saw Warranted.

☞SEND FOR PRICES.☜ 5L6

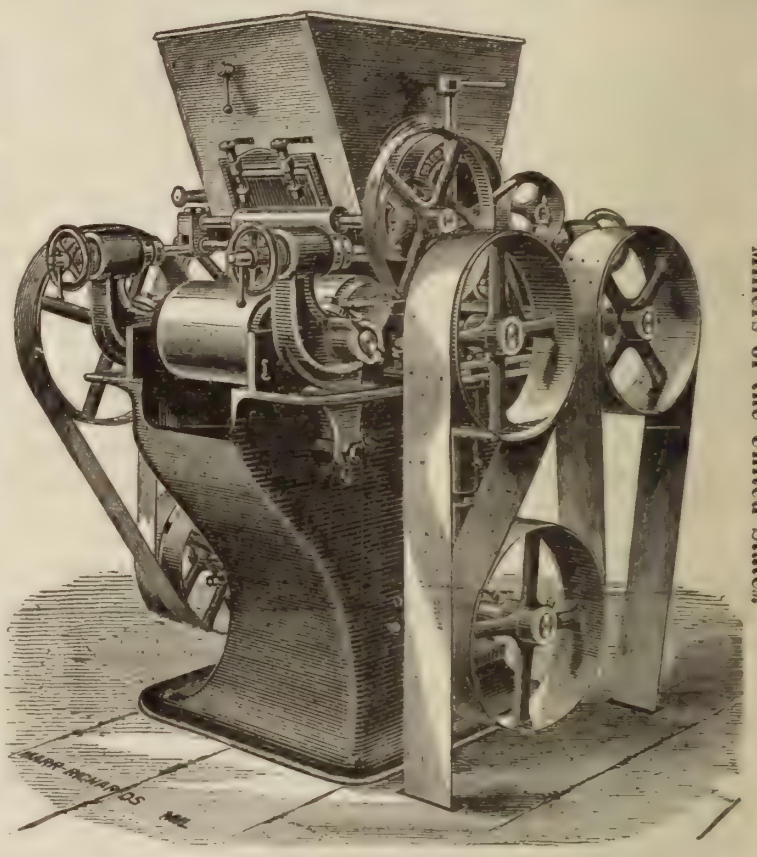
Flour Making by the New Process

GRAY'S PATENT

NOISELESS ROLLER MILL

A Model of Perfection!
Every Mill a Success!

CORRUGATIONS of all Descriptions. Smooth Iron or Porcelain ROLLS.



☞These Roller Mills are used by all the Representative Millers of the United States.

The Machine is Perfect in all its adjustments, and RUNS WITHOUT NOISE.

It is doing Better Work than any other Machine in use.

Automatic Lubrication of Principal Bearings.

Driven entirely by BELTS.

Differential Speed always insured.

WEYMAN'S NEW IMPROVED PATENT

Porcelain Rolls

The BEST ROLL FOR MIDDLINGS in the world. Over 6000 in use in this country and Europe. Send for particulars.

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SOLE LICENSEES FOR DOMINION.

Manufacturers of Improved Hoisting Machinery, MINING and CONTRACTORS' PLANT. Importers of BEST STEEL WIRE ROPE. Mention this Paper. 1L19

Northey's Steam Pump Works

BOILER FEED PUMPS,
AIR AND CIRCULATING PUMPS,
STEAM FIRE PUMPS, and
WRECKING PUMPS.

MINING PUMPS,
PUMPS SPECIALLY ADAPTED for
OIL PIPE LINES,
And CITY WATER WORKS.

No. 47 King William Street.

HAMILTON, ONTARIO.

SEND FOR CIRCULAR. 1L12

ESTABLISHED 1820.

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GEORGE BRUSH

14 to 34 King and Queen Streets, MONTREAL,

MAKER OF

Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

AND AGENT FOR 1L20

"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

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MANUFACTURERS OF

Steam Engines, Mill Gearing, Rotary Mills, Shafting, Planers, Hangers, Pulleys, Variety Moulders.

SPECIAL MACHINERY MADE TO ORDER

Latest Improved Spool and Bobbin Machinery.
Every Variety of Heavy and Light Casting.

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Foundry and Machine Shop on City Road,

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We are the most Extensive CLOTHIERS in Canada.

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We watch the interest of our Customers. Our stock is FULL of the very best goods in Scotch, English and Canadian Tweeds.

We BUY and SELL for Cash, therefore it enables us to do business on very SMALL PROFITS.

NOTE THE PRICES.

We give a Good Tweed Suit for.....$6 00
We give a Good Tweed Pants for..... 1 50
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Cash advanced on Goods put in for sale. ☞No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelton & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

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Men's Flannel Shirts and Durable Underclothing.

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EMERY WHEELS FOR SAW GUMMING!

Solid Emery Wheels are now almost in universal use for the purpose of guilletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eigths of all in use are beveled.

The principal sizes are:

8x1/4, 8x3/8, 8x1/2 } 3/4 in. hole. 10x1/4, 10x3/8, 10x1/2, 10x5/8 } 3/4 in. hole. 12x1/4, 12x3/8, 12x1/2, 12x5/8, 12x3/4, 12x5/8 } Holes, 3/4, 7/8 and 1 inch.

Probably more wheels 12x3/8, 12x1/2 and 12x5/8 are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer *for* almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1d8

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania

CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

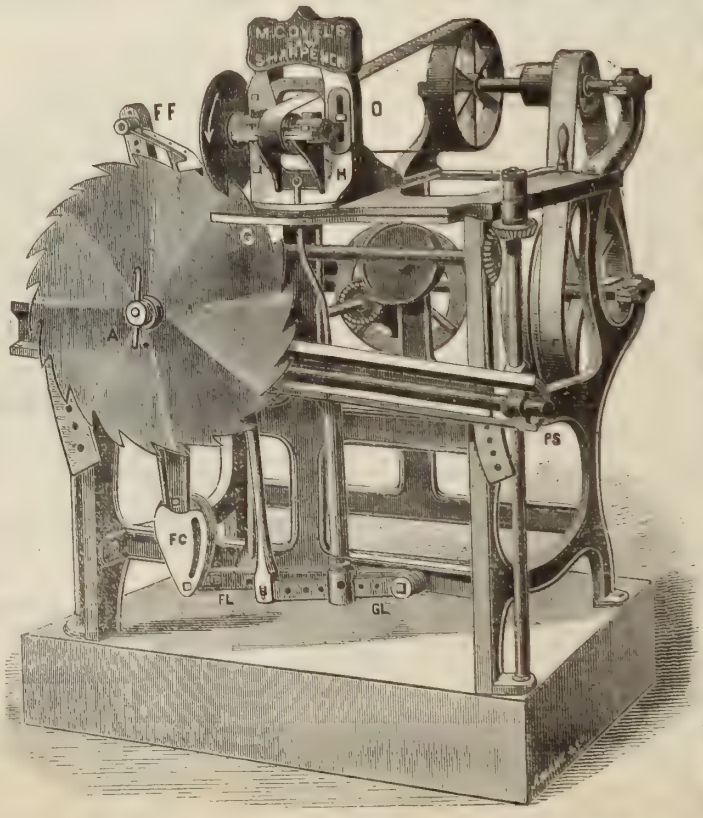
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



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I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

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CORLISS ENGINES

Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 11tf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President. JAMES T. BARNARD, Hamilton, Secretary-Treasurer. SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

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EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERSTON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ., PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

LL1

Toronto November 17th 1881

Messrs The Joseph Hall Manufg Co
Oshawa
Ont.

Gentlemen

I know you were Manufacturing Engines and Mill machinery in 1872 you supplied me with all the Machinery for my Saw-Mill at Midland.

Every part of the work was strictly first class and gave me the greatest possible satisfaction. I never saw as good a lot of Machinery. The material was the very best quality and the workmanship unsurpassed. Until my Mill was burned and rebuilt I did not fully realize how entirely you carried out your agreement to do me a first class job

The Engines, Boilers, Circulars, Gauges, and connections worked splendidly In the Erection of the Machinery we had no trouble everything was according to the plans and Specifications furnished and was put together without alteration of any kind I am pleased to learn that you have repurchased the patterns and plant you sold to the McGill Manufg Coy and intend to manufacture all kinds of Mill Machinery Now shall have all the work I can send now

Yours very truly
W H Cook

President of the British Canadian Lumbering and Timber Co.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS' AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM

VOL. 2. PETERBOROUGH, ONT., MAY 1, 1882. NO. 9.

QUEBEC PINE LANDS.

In introducing the resolutions as to Quebec pine lands, which we have already published, the Hon. Commissioner of Crown Lands spoke at some length in support of his measure, and pointed out very clearly the necessity which existed for such legislation. During the course of his remarks he presented some very important statements, notably one indicating the number of acres sold and free grants alienated since Confederation up to the 31st December, 1880, which was as follows:—Total number of acres sold, 1,642,238; free grants, 346,011; total, 1,988,249; collections, $560,275.05; expenses, colonization roads, $1,327,338; surveys, 306,996; salaries and disbursements, $255,588; commission, $47,081; postage, $11,053; total, $1,947,857. On collections the average price per acre was 34 cents; on sales, $623,357, price per acre 37 cents. This statement shows that the expenses have been three and one half times over the amount collected. The annual average collections on the item of woods and forests since confederation has been $403,668, and on account of Crown Lands, $42,608 annually. The hon. gentleman then compared the exports of lumber from the province for the last twelve years, with those of Ontario in the same time, which showed that our export of lumber has surpassed that of Ontario by fully 50 per cent. Mr. Flynn also alluded to the great loss which the province sustained through fires, and quoted from the *Canada Lumberman* to show that during the last year it was estimated that Ontario had lost from $10,000,000 to $15,000,000, and the Ottawa Valley alone in the vicinity of $5,000,000 from this cause. He pointed out at some length the great interest which the province had in keeping the Crown lands always in good condition and putting an end to the reckless waste which has taken place for a number of years.—*Montreal Gazette.*

STAVE BOLTS AND ELM LOGS.

DETROIT, April 13.—A meeting of the National Stave Exchange was held at Toledo yesterday, at which a large number of firms in the different States were represented. In addition to other business connected with the Association, the following preamble and resolutions were unanimously adopted:

"Whereas, on the 13th day of October, 1880, Mr. H. F. French, then Acting Secretary of the Treasury, on an appeal from a firm engaged in importing large quanties of cut barrel staves from Canada under the fraudulent name of "sugar cask staves," did issue an order reducing the duty on barrel staves from 20 per cent. (which under the tariff of 1862 has been the rate for more than eighteen years) to 10 per cent., or one half.

Whereas, under the stimulus given to Canadian manufacturers by this large, sudden, and entirely unexpected reduction in duties and also by fraudulent invoices, reducing the duty actually paid to about 5 per cent. on the real value of the staves, a large number of stave mills were established in Canada, even some American capitalists, with indecent haste and questionable patriotism rushing into Canada to take advantage of the aforesaid erroneous and unjust decision.

Whereas, said decision threatened very serious and permanent injury to all stave manufacturers in the United States dependent on Canada for the whole or a portion of their timber supply, and those whose products came into competition with the products of Canada.

Whereas, the Hon. C. J. Folger, Secretary of the Treasurer, did on the 25th of February, 1882, render a decision restoring the former interpretation of the Act of 1862, and thereby the duty on barrel staves to 20 per cent.

Wheras, certain Canadian manufacturers are making extraordinary efforts to induce the Dominion Government to impose an export duty on stave bolts and heading bolts of $1 per cord, and on elm logs of $2 per thousand feet in retaliation, because the import duty on staves has been restored to the rate fixed by Act of Congress twenty years ago.

Therefore resolved, if the Dominion Government shall impose an export duty on staves, heading, and hoop timber, it will be the duty of the United States Congress to increase the import duty on these commodities sufficiently to more than offset the effect of said export duty, and fully protect the American manufacturers.

Resolved, that being engaged in an honourable and necessary business, having full faith in the disposition and power of our Government to strike blow for blow when necessary in order to protect and defend its citizens against injuries designed to be inflicted on them by foreign Governments in any form, and having also entire confidence in the zeal and fidelity of our Senators and Representatives in Congress, we will go on with our business, having no fears of any permanent injury from hostile legislation without or within.

PUGET SOUND LUMBER.

The demand for Puget Sound lumber is rapidly increasing, and the mills are all behind their orders. When a bill is wanted for a very large structure the stuff has to be ordered several weeks in advance. The capital invested in the lumber business of the Sound district is over $40,000,000. The machinery used in the mills is of the most modern make, gangs and circulars being employed. The sawdust is carried by machinery and emptied into the furnace as fuel. The waste is burned in unquenchable fire, as it is in eastern mills. Though the annual output of Puget Sound lumber is 300,000,000 feet, and the industry has been prosecuted for quite a number of years, the timber already cut can hardly be missed. Several million acres of this timber land are accessible to Sound waters and the rivers flowing into them, and the building of railways will open up to accessibility millions more. There are no freshets about the Sound to sweep away logs or mills. The tides of the Sound waters rise a given height year in and year out. The mean high tide is 14 feet, and the extreme high tide is three feet higher. Logs are always floated on a rising or a receding tide. The price of logs is uniform at all the mills, being $5 a thousand for lengths under 60 feet, and from $5 to $12 between lengths of 60 and 140 feet. The price of lumber at the mills is also uniform, being $10 a thousand for good cargo lumber, and from $14 to $22 for cedar, dressed. Hardwood lumber is worth about $25 a thousand. The building of railroads that are projected will call for a large amount of lumber, timber and ties from Puget Sound, and this demand is to be a great stimulant to production. The lumber interests of the Sound district is largely in the hands of powerful monopolists, who have the notion that a dark policy is the better one for them. They are averse to giving any statistics of production, and look coldly upon the emigrant. But the time will come when the solid shell of these monopolists will be broken, and the wealth of the Puget Sound region thrown open for the benefit of an immigrant trade. The completion of the Northern Pacific railroad will do the business for the monopolists.—*Northwestern Lumberman.*

WORM-EATEN WOOD.

A number of worn and worm-eaten pieces of wood were lately shown at the Public Works Department. They were specimens of wood which had been in use as piles and fenders on government wharves and breakwaters on the Atlantic and Gulf coasts, and had been sent to the department as illustrative of the necessity of the frequent renewal of timbers in these constructions.

One was a piece of hemlock timber from the railway wharf at Point Duchene, N. B. This piece, which has been in use as a fender, put on in 1873 and removed last year, was, by the ravages of the worms and the incessant action of the sea, reduced to about one-half its former circumference, excepting the knots, the hardness of which had preserved them intact, giving them the appearance of a decayed tree, having the limbs lopped off about six inches from the stem. Another, a part of a pile taken from Digby, N. S., had in fourteen years' exposure to the worms become completely useless for strengthening purposes, while a section of a pile driven at Shediac, N.B., in 1878, had in only three years been so perfectly honeycombed as to be seemingly unable to withstand its own weight. Other pieces of spruce hemlock were also seen in various stages of destruction and decay, showing the incapability of these descriptions of wood to resist the ravages of the destructive little creatures. It is not only the weakening of the timber by the perforations of worms that renders it useless in a short time, but the wood having once become porous thereby, it is rendered susceptible to the continuous action of the water, and is thus worn down with wonderful rapidity. These worms vary in size in different waters, and the appearance of a similar wood exposed for any length of time in the waters of the Gulf and those of the Atlantic Ocean, might be compared to that between the finer and coarser varieties of sponge. Some kinds of wood are more impervious to worms than others; thus in localities where spruce and hemlock timber would, in a short time, become thoroughly worm eaten, birch and elm would remain intact for years, yet in all cases it is but a matter of time, and only solid stone is of sufficient durability and strength to withstand effectually the ravages of these worms and the constant wearing of the waters.—*Scientific American.*

THE DISPUTED TERRITORY.

The following is a return to an address of the House of Commons, dated 1st March, 1882:—For copies of all Timber Licenses and Mining Licenses issued for cutting timber or mining within the disputed territory west of the meridian of the east end of Hunter's Island; also copies of all leases or grants of mill sites or other water privileges; also a statement of the number of acres granted in each year in the same territories to date.

LEASE.		
1875—Fuller & Co.	38,400	acres.
1876—Stephen H. Fowler	64,000	"
1878—W. J. Macaulay	48,000	"
1880—W. J. Macaulay	16,000	"
SALE.		
1881—Keewatin Lumbering and Manufacturing Company	296	"
LICENSE OF OCCUPATION.		
1881—Keewatin Lumbering and Manufacturing Company	30	"

The North American Timber Fleet.

At Greenock and Port Glasgow vessels employed in the North American timber trade are now being fitted out, preparatory to sailing for the St. Lawrence early in April. The prospects this spring are as yet not very encouraging, the rate of homeward freight offering being low, while cargoes are said to be scarce, owing to the absence of the usual snow fall in Canada interfering with the timber being floated down from the interior. The gales in the Atlantic last fall worked considerable havoc among homeward timber-laden ships, and the fleet, consequently, is this year likely to be somewhat restricted. The pioneer of the North American sailing fleet, the well known ship *Roseneath*, 734 tons, has sailed from Glasgow for Halifax, N.S., with a full cargo of general merchandise.—*Glasgow Herald.*

A LUMBERING DISTRICT OF THE NORTH-WEST.

SELKIRK, April 8.—In my last letter, writen from Derby's house, Lake Winnipeg, I mentioned that we expected to reach the mouth of the Winnipeg river the next evening. In this I intend to describe that day's trip, with a short description of the lumbering country, and also of the return journey. * * * * *

Our direction, by compass, was north-easterly, and for a few miles after leaving Derby's was over a hilly country, sparsely timbered with young spruce trees. We soon, however, reached a more thickly wooded tract, and for the first time saw traces of the lumbering regions of the North West. The road ran through a twenty-mile limit of Messrs Walkley & Burrows. Spruce and tamarac trees of good size, straight but not growing to any great height, were thick. Besides these a few birch and poplar trees were scattered here and there amongst the more valuable timber. About six miles from our starting point we came to Jackfish lake. This lake is about three-quarters of a mile wide, a mile and a half long, and has an outlet by a creek of the same name flowing into Lake Winnipeg. * * * * * * * *

As we moved out from the creek, we could see the mouth of the Winnipeg river, and on the south side Walkley & Burrows' mill. Our course lay east along the shore of the lake, and in a short time we reached our destination. The Winnipeg River, directly about the mouth, widens out into a deep bay on each side until it resembles a small lake more than a river. The banks on each side are high, and covered with trees. Close to the water the timber is chiefly poplar, but further back spruce and tamarac abound. Messrs. Walkley & Borrows saw mill stands on a low sandy point exactly at the mouth of the river. The mill is the pioneer saw mill of Lake Winnipeg, and has been running for nearly twelve years. It was formerly worked by Mr. Macarthur, of Winnipeg; but since the year 1878 has been leased to the present proprietors. During the past winter Messrs. Walkley & Burrows have, with commendable enterprise, erected an entirely new building on the site once occupied by the old one. This building, built of spruce lumber, is seventy-six feet by thirty-six feet, and will contain a fifty horse power engine, running one circular saw and an edger. The capacity will be about 20,000 feet in ten hours. During the winter Messrs. Walkley & Burrows have employed about fifty men in the woods and had taken out about 3,000,000 feet of uncut lumber. these logs are on Catfish creek waiting for that stream to open. Sawing will be commenced about the first of May, and will continue night and day until the supply is exhausted.

Running some distance up stream from the mouth the land each side is taken up in the Indian reserve known as Fort Alexander. *

Just above a deep bay widens the river, and at the upper end of this

THE MANITOU RAPIDS COMMENCE.

These rapids are navigable for small steamers and "York" boats, and owing to the swiftness of the current are rarely entirely frozen over in the winter time. This winter portions of them remained open until the very severe weather of a few weeks ago. From this point, going up the river the banks on both sides are high and rocky, and covered with spruce and tamarac trees, almost to the water's edge. The river is wide and deep, and in the summer time the scenery must be exceptionally grand. Of course but a very vague idea can be gathered of the scenery in the winter, but even then it has a peculiarly picturesque though bleak grandeur. Eight miles from the mouth are the Pine falls. The fall is perpendicular, and is only about ten or twelve feet high. It is broken by a small wooded island. The river is about 200 feet wide, and on both sides is heavily timbered. The fall forms a natural water power for another saw mill, that owned and worked by Messrs. Adams & Schneider. The Pine fall, of course, puts a stoppage to the navigation of the stream, except in small boats and canoes, and in them necessitates a short "portage." A short distance above the Pine falls the river again widens, and the Great or Little Bear falls or rapids occur. Above these the river is nearly a quarter of a mile wide, and is studded with small, rocky islands, with a few scrubby trees growing on them. Seven miles above the Pine falls are

THE SILVER FALLS,

and one of the prettiest and grandest pieces of scenery on the Winnipeg river, if not in North America. The distance between the banks on each side is about three hundred yards, while the fall is nearly a quarter of a mile long. High masses of rock, their summits snow-covered, are piled in the course of the stream. These cause the water to break and form several "chutes" or rapids, while the foam, hurled high in the air, glitters in the sun like burnished silver, thus giving, I suppose, the name to the falls. Each bank is high and rocky, while growing in the crevices are gigantic spruce trees, and their sombre shadows on the white snow, the roar of the water, and the wild and dreary grandeur of the scene, make it an impressive and ever-to-be-remembered one. The still water near the shores is frozen over, but out in the stream the rushing, tumbling water bids the Frost King defiance. Logs going down the falls are, I am told, as completely denuded of bark as if they had been subjected to the knife. The "trail" or road above Silver falls being so bad and rough I did not go further, but I have been informed that, counting the ones already mentioned, there are no less than thirty-seven falls and rapids between Rat Portage and the mouth of the river.

The land around the Winnipeg river above the Pine falls is too stoney to admit of very successful tillage, yet it has in its timber another source of wealth. Below the falls just mentioned the soil is more valuable, and when cleared would make excellent farming land. The same may be said concerning the soil on the eastern shores of Lake Winnipeg. In addition to the comparatively inexhaustible timber supply there is little land that, once cleared of brush, cannot be used for purposes of husbandry. The only drawback at present is the difficulty of reaching these places in summer other than by boat. This drawback may continue for years yet, but I do not think that it will be long before this region also receives its quota of settlers.

I left Fort Alexander yesterday morning, on my return journey to Selkirk. This time I went further up the Catfish creek, and across to Jackfish lake, by another road known as Beaupre's from a logging camp of that name situated upon it. In travelling by this road I passed through an even finer stretch of lumbering country than on the out-ward journey. The ground was more irregular, and hills abounded. some parts of it would, I consider, make more than average farming land. There is plenty of poplar wood of a size sufficient to build log houses. The spruce and tamarac suitable for lumbering purposes have been pretty well thinned out in the neighbourhood, but further to the south there are yet some heavy growths. Joining the old "trail" at Jackfish lake, we reached old McLean's about sunset last evening, the only episode on the road being a dinner from a part of a moose just killed by an Indian near the lake just mentioned. Making an early start this morning, we reached Selkirk about six o'clock this evening, and thus ended my trip with "freighters."—*Mail*

AN IMPORTANT DECISION.

The following is the verbatim report of the judgment of Mr. Justice Proudfoot in the case of Hilliard vs. Thurston, tried at the sitting of the Chancery Division of the High Court of Justice at Peterborough, on Friday, April 21st:

JUDGMENT,—MR. JUSTICE PROUDFOOT—Seeing the doubtful facts, it would have been better if the case had been tried by a jury.

There are two or three questions to be determined. The first is whether this fire was caused by sparks from the steamboat, the next whether there was negligence either in construction or management of the boat.

Well, I think under all the various principles that ought to guide one in arriving at a conclusion from facts sworn, and circumstances that appear in evidence, that I must necessarily conclude that the fire did result from the sparks from this steamboat. It is just such evidence that would have been made use of and have been properly admissable to a jury in case of a man indicted for arson in setting fire to the place. Then there is the numerous lot of witnesses who testify to the fact of the steamer passing there almost immediately within 5 or 10 minutes afterwards—after the fire burst out. There is no fire shown to have been in the neighbourhood—not to have been within 30 or 40 rods or more, except the steamboat's fire.

There is not even shown to be a man with a pipe going around looking at the mill, or in the neighbourhood of the mill, and the only fire within reasonable distance at all was that down the river, of Green & Ellis', some 30 or 40 rods off. It was the nearest; I am not sure but what it was farther. I think it was Green & Ellis' saw mill; not the shingle mill. It was some 30 or 40 rods down the river. It was most favorable to defendant's case to show that the stream of air crossing Green & Ellis' smoke stack would not come within 30 or 40 rods of the south side of plaintiff's mill, and of course if it would not come within that distance, it could not send sparks to the mill.

So that it seems to me that every circumstance in connection with the occurrence of the fire would rather tend to show that it came from the steamboat than from anything else.

There is another thing to be borne in mind in that connection, which I mentioned during the argument,—the number of pounds of steam allowed by the Inspector was 85, and it had been up to 87 pounds, and they were blowing it off to get down to the 85 when passing the mill.

Now it does seem to me that circumstances rather weaken the effect of defendant's testimony, for I can hardly suppose that when the damper closed they would have been able to raise the steam to that height. He tells us the damper was put on when stopped at Green & Ellis' mill, by the obstruction in front of that mill. It must have been consequently that they put the steam on after leaving and coming up the stream, and before they reached this other mill building, with full head of steam and two pounds more.

Then we have evidence also that when full steam was on, and the escape pipe sending the waste steam into the smoke stack, that it necessarily caused a large draft of sparks up the chimney, and the lower screen was open and there was nothing but the bonnet on top of the smokestack, and the meshes about the bonnet, as shown in the evidence here, and as sworn to by some of the witnesses, would have permitted the escape of sparks quite sufficient to have set fire to the mill, especially in that very dry period. The defendant himself tells us it was a period when the greatest care ought to be taken, and when he desired his men to exercise the greatest care.

Well, I think that under these circumstances it would be going against my own judgment to find anything but that the fire had been caused by the issue of these sparks.

The next question is whether there was any negligence on the defendant's part either in construction or management of the boat. It is said that the boat was just as he had got it, and that it was necessary, to run the boat, that he should employ steam, and keep a smoke stack; but I do not know that a man is at liberty even to make or to buy a defective instrument, or a dangerous instrument, and then say, oh, that is just as I had it, and in order to make it useful I must use it. I don't know that there is anything in the law or in common sense that would justify defendant in doing that. I don't think it would justify him in carrying a dangerous instrument of that kind among inflammable property, without he had done the best he could to prevent evil consequences, and I think that probably *there* will be found the distinction between the cases cited by Mr. Moss and those cited by Mr. Blake, that in the case of railways the Legislature has authorised them to run their engines. If they use all skilful and scientific precautions to prevent accidents, they are not affected, but the same exemption does not apply to a person using any of the other ordinary avocations of life which he is not authorised to do by the Legislature.

He can only then rely upon the protection given him by the common law. Now the protection of the common law is that you must use your own property in such a way as not to injure your neighbors, and here the defendant must show that he had used his own property so as not to injure his neighbor. I suppose if he was going to show that he had done everything possible, within the range of science, within the range of care, precaution and skill, that he ran his steamer without injuring his neighbors, that he might probably be exempted, BUT I think the evidence goes to show that there were various ways in which the running of the steamboat might have been improved.

I don't think it is necessary for the decision of this case to go into the question of the improper construction of the boat, I will take simply the improper management of the boat, including in that management, the mode in which the steam was made to escape, and I think that one circumstance alone of throwing the escaped steam into the smokestack, when it might have been thrown otherwise, and when the usefulness of the boat might have been retained by making it otherwise when passing inflammable property shows the improper management.

That is a thing that might have been done, and could have been done at a very small expense, having the steam deflected instead of throwing it into the smokestack, and would not have involved the defendant in any great trouble.

Then defendant in the part read from his examination, says that the lower screen should have been shut, at least that is the way I understood it—that the lower screen should have been shut when passing the mill.

Now the evidence here seems to me to be conclusive that it was not so, that the screen was open and that there was nothing but the bonnet to protect it, and the evidence of the other witnesses is that that damper would permit the escape of sparks quite sufficient to set fire to the mill.

That evidence given by Lane seems to me most important as to the head of steam. It shows they were running the whole head of steam that the Inspector allowed, and that could'nt have been done without having a full fire, and the full fire necessarily involved a great crowd of sparks. They were not visible, of course, in the daytime, but they must have been there, and the natural result seems to have followed, that they caused the fire.

It is said this steamer was constructed in the same way as other steamers are on those waters. I don't think evidence has been given to bring it within the same character of those other vessels. It is not shown that the other vessels were constructed in the same way as this, that the boiler and engine were of the same horse power, in which case it requires a greater draft to make the machinery available.

Then with regard to the proper channel. What would be the proper channel in an ordinary wind might not be the channel when a heavy wind was blowing from westward.

The evidence of the captain is merely that he was more towards the east than towards the west at the time of passing the mill. Well that would be satisfied if he was simply over in the middle of the stream.

Then the other witnesses. I think all the other witnesses say the proper channel is rather towards the west side than towards the east, BUT whether he was in the proper channel or in the improper channel, whether he was on the east or west side, he could not have been more than 30 or 40 feet from the middle, and it seems to me not at all impossible that the wind blowing briskly from the west side of the stream would carry sparks of that magnitude and cause it to escape through the wire gauge, and set fire to inflammable property, inflammable as gunpowder almost after a long heated spell in July to a distance of 30 or 40 feet.

The best conclusion I can come to is that defendant is responsible for this loss, and there will have to be a reference to the Master to ascertain the amount of it,

The above is the judgment as delivered herein.

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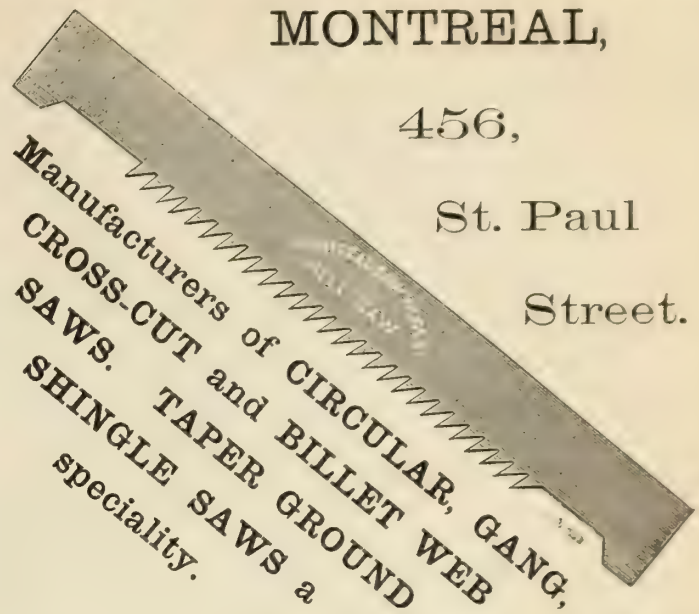

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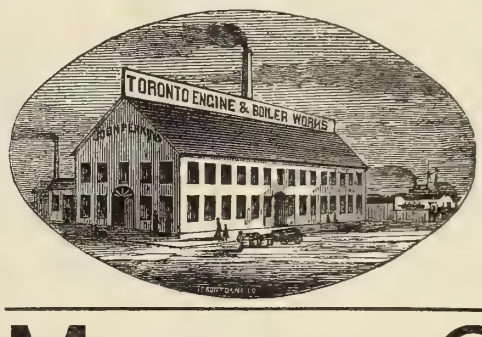

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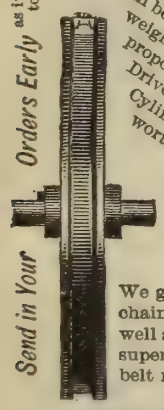

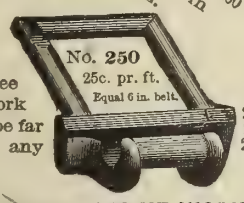

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F. BRAUN,
Secretary.

Dept. of Railways and Canals, Ottawa, 18th April, 1882. 4d95-1aw-1L9

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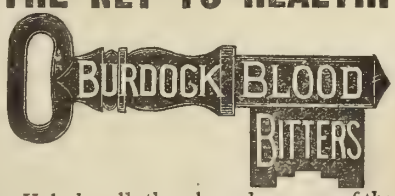

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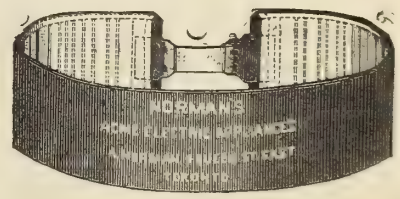

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WHAT WE OWE TO THE TREES.

We continue our extracts from Mr. N. H. Egleston's paper in the April number of *Harper's Monthly Magazine* :—

SCIENTIFIC MANAGEMENT.

It is pretty well settled now that for the best interests of most countries, their healthfulness, the greatest productiveness of their fields, and their general comfort and thrift, not less than a fourth part of their area should be permanently in forest. Wherever this proportion is not preserved, harmful consequences sooner or later ensue. But in Europe the forests are cherished and cared for not only on this account, but as being one of the most important industrial resources of a country. Science and art are employed not only to preserve a proper amount of woodland for the best development of other interests, sanitary and economic, but to produce the largest pecuniary returns from the forests themselves. The conditions for the best growth of the forest as a direct source of income are studied as carefully as are those for the growth of wheat or corn. By constant experiment and observation, in connection with the schools of forestry, it is ascertained what trees are best adapted to grow in particular soils or with particular exposures, which flourish best in a moist and which in a dry atmosphere, which in elevated and which in low situations. It is found, also, that trees, like human beings, are not only social in their nature, and will grow better when planted together in masses than when obliged to grow singly and apart from each other, but that they liked a varied society ; that the pine, for instance, will flourish better, will develop its nature more fully, attain a grander stature and a better quality, when planted in company with the oak or other trees different in character from itself, than when it is limited to the companionship of its own kind. The same is true of other trees, and it is only as a result of a nice and protracted study that the affinities of trees or their preferences in this respect can be determined. Then, also, it has been found that trees come to their best when a rotation of crops is observed, as in the case of the grains and grasses, and so the officers in charge of the governmental and other forests have it for one of their duties to determine what class of trees shall succeed each other, and in what order.

Under this forestry management, now so well established in every country of Europe, the woodlands or forests have as constant oversight and care as the corn field has with us. The forest is not, as here, a hap-hazard and accidental growth, with which man has little to do except to notice its progress, and levy upon its resources according as they may serve his convenience or his greed, but the trees are regarded as one of the staple crops of the land. They are planted for a definite end—fuel or timber—but so planted as to conserve all other interests of the community. This planting is prepared for with due reference to the fact that the crop is not to to be gathered at the end of a few months, but only at the expiration of a century or more. From the sprouting of the pine seed or the acorn in the seed bed until it has attained its growth and come to its destined harvest-time, a hundred and twenty years it may be afterward, not a year passes—we might almost say not a day—when it is not looked after with care, and everything done that will promote its best growth. What shrub or trees shall be planted near it to protect its infant feebleness, how near it they shall be planted, how soon one and another shall be removed in order to give it more light and more room in which to develop itself, what insects are preying upon it and threatening to check its growth, what symptoms of feebleness are manifest, and what may be done for their removal—these and many other things are taken into consideration ; and the tree is thus watched over, not by one person, but by many, and by generation after generation, whom it outlives. Then, again, if a piece of forest is planted with a view to a yield of fuel, it will have a different treatment from that which will be given it if it is destined to produce timber or lumber for use in the constructive arts. The most economical method of cutting the trees when arrived at maturity, and the best means of getting them to market, whether by land of by water carriage, will also be carefully studied. Roads will be constructed by the most scientific engineering, and canals will be made, or river courses will be taken advantage of, and by means of dams slack-water navigation will be obtained for the purpose of facilitating the movement of the products of the forest.

Then, furthermore, the forests will be carefully guarded against any browsing animals, which the experience of European foresters has proved are among the most destructive agencies against which they have to contend. It has been well said by Sir John Sinclair, in his *Code of Agriculture*, that "a landlord had better admit his cattle into his wheat field than among his underwood. In the one case they only injure the crop of one year, whereas in the other, by biting and mangling one year's shoots, mischief is done to the amount of at least three years' growth." Oftentimes the death of the tree ensues. In some European countries the right of pasturage, which has been entailed upon many of the forests, has been one of the greatest burdens which the proprietors of woodland have had to bear. A similar right to gather the fallen leaves, for litter or bedding, the *Streu-recht*, which attaches to some forests, is considered a great hindrance to the growth of the trees by taking away their natural constituents, and the proprietors have taken great pains to extinguish such rights, by purchase or otherwise, whenever it has been possible to do so.

SCHOOLS OF FORESTRY.

In one case, at least, the necessity of establishing such a school of observation in connection with any agricultural society has been obviated by the founding of the Arnold Aboretum of Harvard University. This institution is described by its director, Professor Sargent, as being :

First, a museum of living plants, in which every tree and shrub capable of withstanding the climate of Massachusetts is to find its appropriate place, this collection being supplemented by the herbarium and various special collections illustrative of trees, their products and uses.

Second, a scientific station for investigation into the character, growth, and economic and ornamental properties of trees ; into the relations of forests to climate and the flow of rivers ; and into the best methods of forest reproduction and management.

Third, a school of forestry and arboriculture, in which special students may, when the demand for such instruction is felt, acquire the knowledge and training necessary to fit them for the care and increase of our forests.

This modest institution has already modified legislation in favor of tree-planting in several States, and been the direct cause of planting many million trees. It is doing a great deal in introducing and testing new plants in this country, and sending those of this country to different parts of the world. It maintains an extensive correspondence in regard to trees and arboriculture with every part of the United States and Europe, and is doing much in collecting and disseminating information in regard to trees and their culture.

A similar and unmistakably good work may be done in connection with any of our colleges or scientific schools, and there is hardly an object which more commends itself to the liberal-minded lover of his country than the founding of such institutions as the Arnold Arboretum.

The national government has done something in the right direction by the passage of an Act, a few years ago, by which the public lands were made an outright gift to the settler on condition of his planting a certain portion of it with trees, and cultivating them for a definite period. It has been thought by some that a Bureau of Forestry might be established in connection with the Department of the Interior, to which might be committed the care of the so-called "timber lands" belonging to the government, and of the great parks belonging to the Rocky Mountain region, and which might do good service in collecting facts relating to the growth and uses of trees, and disseminating them throughout the country. Possibly the end desired may be attained in connection with the Smithsonian Institution, aided as occasion may demand by Congressional co-operation. Possibly there may grow up by-and-by in this way a central national arboretum, in addition to those established as we have suggested in the several States, and perhaps a School of Forestry, or something answering the purpose of such.

RECKLESS WASTE.

While in some portions of our country there is still an ample supply of forest, the latest statistics show that in the proportion of forest area to the entire surface this country stands below Norway, Sweden, Russia and Germany. A great treeless belt from three hundred and fifty to eight hundred miles in width stretches from the Gulf of Mexico to the Arctic Ocean. Sometimes this is absolutely destitute of trees as far as the eye can see. Elsewhere there are fringes of trees along the river-courses. The heavily timbered Black Hills stand out like an island in the midst of the ocean. Other similar detached forests are occasionally found. Beyond the Rocky Mountains, again, there is another treeless region, extending from the Columbia River to Mexico, and Professor Brewer says it is possible to cross the continent from the Pacific to the Gulf of Mexico without passing through a forest five miles in extent. Persons who have traversed our newer Western States, almost all of which are deficient in forests, report the destruction of even those limited supplies of timber by fire as being sad to behold. The miners consume great quantities of timber in the prosecution of their work ; but so reckless are many of the settlers and traders in the destruction of the trees that self-interest has prompted the miners in some cases to establish a system of lynch law for the protection of the forests. One saw mill on the Keweah cut over two million feet of "big tree" lumber in one season. But in these milling operations waste far exceeds use ; for after the choice young manageable trees on any given spot have been felled, the woods are fired to clear the ground of any limbs and refuse, with reference to further operations, and of course most of the seedlings and saplings are destroyed. In the Rocky Mountain region hundreds of square miles are disfigured by the trunks of trees blackened by fire. Where one tree is cut for use, ten probably are consumed by the flames. Professor Hayden, in his report of 1871, in speaking of this subject, calls attention to the fact that these burned districts are not covered again by a subsequent growth of trees, but remain bare for evermore. He intimates also that there is reason to believe that in that mountain region, even when undisturbed by the hand of man, the forests are gradually disappearing under the influence of natural causes. In the same strain a writer in the Virginia *Enterprise*, Nevada, says : "It will be but a very short time before we shall be able to observe the effect that stripping the fine forests from the sides and summit of the Sierras will have on the climate of this State and California. In a very few years every accessible tree, even to such as are only of value as firewood, will be swept from the mountains. Even now this has been done in some places. It is to be hoped that a new growth of pines or timber trees of some kind may spring up on the ground that has been cleared, but we do not hear that any such growth has yet started." The President of the State Board of Agriculture of California reported ten years ago that within twenty years at least a third of the whole native supply of accessible timber had been cut off or destroyed, and that, judging the future by the past, it would require only about forty years to exhaust the remainder. He says : "Thousands upon thousands of the noblest and most valuable of our forest trees in the Sierra Nevada districts have been destroyed without scarcely an object or a purpose, certainly with no adequate benefit to the destroyer or anyone else."

Reports like these might be multiplied to any extent, and it is only when we bring such reports together that we are able to get a proper notion of the work of sylvan destruction that is going on, and which is threatening us with such danger—danger not only of a scarcity of lumber and fire-wood, and the enhancement of the cost of a multitude of articles of comfort and convenience, but danger of a deterioration of climate, carrying with it a diminished productiveness of our fields, and influences detrimental to health. This danger can hardly be overstated. Nor can we be too prompt or energetic in our efforts to avert it.

ENDURANCE OF WOODEN BRIDGES.

Some interesting literature was presented recently before the London and Middlesex Archæological Society concerning "Old Fulham bridge," in which the history of this venerable structure was reviewed and particularized to show its almost wonderful endurance and longevity, as demonstrating that the superior character of bridges constructed of other material than wood, over the latter, is by no means an established fact, and that much must be accomplished to outwear a strong and well built bridge of wood. The bridge referred to, which is located at London, between Putney and Fulham, is a timber structure, and the oldest existing bridge over the Thames in the Metropolis, though it was erected in the year 1729, to supply an immediate and temporary want until its place could be occupied by a more permanent structure. Instead of being a comparatively ephemeral affair it has survived and done good service all these years, while two ponderous stone bridges over the Thames have become ruins, and have been supplanted by more modern structures.

THE Grantsburg *Sentinel* says :—We hear that several saw mills will be put up along the line of the North Wisconsin railroad this year. The Eau Claire Lumber Co. will build one above Cable, one will be built at Hayward, and another between Veazie and Stewart ; Walker, Judd & Veazie, of Marine, being interested in the latter. Other mills will probably be built. We understand that the railroad company will not sell timber intended to be cut and driven down any of the streams ; it's their policy to have mills put in to manufacture it into lumber. The mill at Shell Lake will be completed and in full running order by the middle of May, when it is expected to cut 200,000 feet per day, employing 200 men.

A MAN named L. Grunnell, operating on Klockidy creek, Ogemaw county, Mich., had a peculiar experience on April 5. He started a log with a cant hook which had become lodged on the chute over the dam. The log dragged him over the chute under water, and shook him up generally among the moving logs, but he bobbed up somewhat serenely a short distance below all right, except that he had temporarily lost his sensibilities. He still hung to the hook, and when rescued had it firmly gripped in his hand. The adventurer is now convinced that if he can't hook a log successfully, he can, at least, hang on to the cant hook.

A PECULIAR feat was accomplished by a chopper named John E. Brownell, at Arlington, Vt. He felled a huge spruce on the mountain side, which was over sixty feet in height, and some twenty inches in diameter, intending it should shoot down the deep descent, which it did with great velocity. About 40 rods from the starting point up the mountain the novel projectile encountered an obstacle in the shape of a birch tree, two and a half feet through the trunk. This the speeding spruce struck with as much force as if it had been shot from a catapult, piercing the birch trunk and protruding six feet through it.

A FEW days since the two largest rafts of square timber ever known to have come down the Susquehanna river for years were brought in at Loch Haven, Pa., on the late flood, and taken down stream by Mr. Thomas Christie and crew. The larger of the two was 341½ feet in length, and was top-loaded with 25 sticks, and contained 13,000 feet, whereas, ordinarily, the general run of rafts contain about 6,000 feet. The second raft was over 300 feet long, and contained some 10,000 feet. It is not believed any pilot thereabouts has run a larger fleet of square timber rafts than this.

HOW TO GET RID OF AN UNWELCOME VISITOR. "Rheumatism" says Mr. A. McFaul, proprietor of the City Hotel, Kingston. "used to hold its own pretty well, but the days of that here are o'er. St. Jacobs Oil, the Great German Remedy has completely conquered the rheumatism, and no man need suffer from it longer. I had it badly until a short time ago, but I used St. Jacobs Oil and was cured, and so can any one be cured in a similar manner."

PINE SQUARE TIMBER.

The *Northwestern Lumberman* says:—Cook, Gibbons & Raney have this winter been getting out pine square timber in Franklin county, N. Y., for the Quebec market. They cut it in township 17, haul it to the St. Regis river at Fort Jackson, in St. Lawrence county, and send it down that stream to the St. Lawrence. This season they have gotten out 1,117 pieces, from 30 to 40 feet long, at a cost of $11,500. It will cost $2,000 more to run it to Quebec. The timber for this trade must be as smooth as if planed, and in order to get the right quality the operators have to go well into the depths of the Adirondack woods. Anyone familiar with the locality can realize the trouble and labor of getting timber from the vicinity of Quebec brook and the Muddywosca to Fort Jackson. The company this season were obliged to make 50 miles of new road. The superior quality of the long, heavy pine thus reached is the only justification of so much expense.

A six thousand dollar fire occurred at Woodstock, N.B., on Friday morning, April 14th. Between 8 and 10 o'clock James Hayden's steam rotary saw mill caught fire in an apartment where some small lumber was being dried. The men were engaged about the mill, Mr. Hayden himself seeing the fire when it commenced, but owing to the combustible nature of the surroundings the upper part of the mill was quickly in a sea of flame. The fire company were quickly at the scene. The mill could not be saved, however, but the flames were prevented from spreading to the lumber and the houses near. Loss on the mill, four to six thousand dollars. As there is a great demand for building material now, the destruction of the mill is a great loss to the community.

The *Northwestern Lumberman* says common pine lumber in the Red river valley is now worth from $22 to $28 per thousand feet. Over 1,000,000,000 feet of the pine which Mr. Washburn's mill throws into the market is on the Red Lake reservation, within easy driving distance of Red Lake river. It is worth, to cut for the Manitoba market, $16 per thousand feet as it stands on the land, or $16,000 per quarter-section. To the settlers of the Red river valley this pine timber is a vital necessity. They ask that the government will put a fair valuation upon it, put it on sale at the earliest practicable moment, and not allow more than one quarter section to be sold to any one individual.

Fear Not.—All kidney and urinary complaints, especially Bright's Disease, Diabetes and liver troubles Hop Bitters will surely and lastingly cure. Cases exactly like your own have been cured in your own neighborhood, and you can find reliable proof at home of what Hop Bitters has and can do.

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

Hagyard's Yellow Oil will be found invaluable for all purposes of a family medicine. Immediate relief will follow its use. It relieves pain, cures chilblains, frost bites, scalds, burns, corns, rheumatism, neuralgia, &c. For internal use it is none the less wonderful. One or two doses frequently cure sore throat. It will cure croup in a few minutes. A few bottles has often cured asthma. Colic has been cured by a teaspoonful dose. It cures with the utmost rapidity. It is really a wonderful medicine.

Everyone's writing, like everyone's face differs from every other, and to help these idiosyncrasies the Esterbrook Steel Pen Co. provide a varied assortment of pens to suit every style of writing, from the finest ladies' pen to the broad point engrossing.

Nervous Exhaustion, and all diseases arising from youthful indiscretions are speedily and radically removed by that wonderful remedy known as Mack's Magnetic Medicine, an advertisement of which appears in another column.

A Reliable Fact.—It is an established fact that Hagyard's Pectoral Balsam is the best cure for coughs, colds, sore throat, asthma, croup, bronchitis, and all troubles arising from neglected colds. Price 25 cents.

Teaberry whitens the teeth like chastened pearls. A five cent sample settles it.

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(Made to Order and on hand.)
MILL PICKS DRESSED in a first-class style. Those shipped by rail will be returned promptly.
☞Lance Tooth Saws Gummed. AXES WARRANTED. 3L24
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The Patent Lever Feed Shingle, Box Board & Heading Machine
(Always takes First Prize.)
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MACHINERY for SAW and GRIST MILLS.
☞SEND FOR CIRCULAR.☜
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The Most Convenient House to all Trains.
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RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
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MANUFACTURERS OF
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Poleroad Tramway Cars
Will Carry 2,000 Feet of Hardwood Lumber per Load
Drawn with one span of horses, either summer or winter, on Round Pole Roads, which are cheap and speedily built.
The woodwork of the Car can be built by any handy man in a couple of days. The undersigned supply the ironwork complete, including bolts and washers and a diagram of car.
The wheels are adjustable on its axles to accommodate itself to any bend in the pole. The weight of ironwork is 2,250 lbs. Price on application to
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Vegetable Balsamic
ELIXIR!
This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:
Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,
and every species of oppression of the Chest and Lungs. In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that
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is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry; then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all morbid irritations and inflammation from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,
IT HEALS THE ULCERATED SURFACES
and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent articles, which are of so drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the cause, generally destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price 25cts. and $1 per bottle. Sold everywhere.
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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. MAY 1, 1882.

GOVERNOR NANCE, of Nebraska, has issued a proclamation urging that every person in that State shall plant a tree on Nebraska Arbor Day, the 19th April.

THE export of white pine lumber from the port of New York, from January 1 to April 1, 1882, was 11,277,000 feet against 12,579,000 feet for the same time in 1881.

TEN car loads of lumber left Ludington from Butter, Peters & Co.'s mill in one train. They load it from the trestle works on the cars as fast as it is sawed and it is taken away every day.

THE Montreal *Star* says the whole navigation of the St. Lawrence is once more kept back by the Cap Rouge barrier, entailing a loss of thousands of dollars to the shipping interest. Is it possible that there is no mechanical or chemical agency by which this small strip of ice could be blown up?

THERE are six million miles of fencing in the United States, the total cost of which has been more than two thousand millions. The census reports show that during the census year there were expended $78,629,000 alone. Of this amount the largest contribution was from Illinois; the second from Pennsylvania.

THE prices of northern pine lands continue to maintain a stiffness in tone. A short time since A. P. Brewer, John Brewer and W. C. McClure, of Saginaw, Mich., sold a tract of pine land in Wisconsin for $40,000, which was purchased some 11 years ago by them for $2,500. In the same connection a sale of last season is mentioned which was made by a Saginaw party who disposed of a tract of pine land for $15,000, which originally cost him just one-tenth that amount.

THE *Lumberman's Gazette* says the work of cutting and banking logs is entirely suspended in all the Wisconsin pineries. Extensive preparations have been made for the drive, and wherever circumstances are favorable nearly all the logs will reach the mills. Reports from Black River say that a good drive is going on on that stream. It is reported the South Fork never was in better condition for a clear drive than at present. In fact good water is reported on all the tributaries of that stream.

THE Northern Pacific Railway Company, in order to encourage the planting of forest trees in the prairie districts through which their lines run, are offering premiums to the most successful planters in each township, county, etc. The premiums consist of free passes over the road, to be used at intervals during the year. If the growth of trees on the prairies is stimulated by this means a mutual advantage will be obtained otherwise than in the premiums offered. The object of the Railway Company, of course, is to afford protection to their lines during the winter, and prevent the troublesome snow blockades.

THE Montreal *Gazette*, of April 17, says:—The demand continues healthy for most kinds of hardwood at full former prices. The new cut is nearly all sold at most of the mills from Quebec up, as well as last year's stock. Shipments during the past week have been made to Platts burg, N.Y., and enquiries from other parts of the States have been received. There is a demand for cherry and other descriptions of hard wood on Boston account, and dealers look forward to a good season's trade. A considerable amount of building is going on, and the requirements for local purposes alone will be extensive during the coming season.

The *Northwestern Lumberman* says:—Big hauls seem to be the rage, and every day or two another "biggest haul of the season" turns up. The biggest claim at the present writing is that made for a camp at St. Ignace, Mich., where John Spence recently hauled with one team of horses, 15 and 20 years old respectively, from the skids to the banking ground, over a road of smooth ice, a distance of two miles, 8,732 feet of logs. There were 13 20-foot logs in the load and one that was 18 feet long. The sleigh bunks used were built, and the logs selected, for the occasion, the attempt being made for the purpose of seeing what the old plugs could do.

RIVERS AND STREAMS BILL.

In the House of Commons Mr. Cameron, of Huron, moved a resolution condemning the disallowance of the Rivers and Streams Bill, which was passed by the Ontario Legislature, was disallowed by the Dominion authorities, and has been re-enacted by the Province. After a long debate the motion was negatived by a large majority, and it is almost certain that the measure will again be disallowed.

MAPLES.

The *Mechanic*, a paper published in Burlington Co., N. J., makes the following remarks on the use of maple for cabinet work:—"Almost everyone knows something about maples, but very few, even of experienced cabinet-makers and carpenters, think of these woods as being available for anything but firewood. The white maple is one of the whitest woods growing in America, only exceeded in that respect by one or two. It is, however, on account of its extreme softness and general lack of strength, practically valueless. The sugar maple is one of the most useful trees. While it is very cheap, we cannot consider it a valueless tree, this low price of the timber resulting from the fact that it is not fashionable, and has not been used to any extent for anything save mill work and rough carpentry. Its grain its very fine, and in hardness and general adaptability for fine carving and cabinet work stands next to boxwood. Beech somewhat exceeds it in the fineness of grain, but is not nearly so beautiful. The great strength of maple renders it valuable in all kinds of delicate work, preventing it from being readily broken, and at the same time allowing a slenderness of construction quite inconsistent with any weaker material. Almost all maple has in its structure a certain waviness, which causes it, when polished, to reflect light and to appear almost dappled. Other varieties are the well known bird's-eye maple, which, thirty or forty years ago, was a very popular wood for certain kinds of cabinet work. Many persons suppose that the bird's-eye maple is a separate or peculiar tree, differing from other maples. This is a mistake; most of the rock maples have a tendency to form little hillocks beneath the bark, and each layer of wood during growth is evenly covered over with these projections, which do not grow larger, but retain their original size. The result of this is that when a slice is taken through one of these little lumps or pits, we find that the grain of the wood is bent up or down in a circle, and, of course, reflects the light differently from that part which is horizontal. In what are called bird's-eye maple trees, these little hillocks or pits in the bark are disposed closely together and regularly throughout the tree. In opening such a tree, when the cut is parallel to the bark, we have a board showing the bird's-eye maple markings. If, however, the cut is made radially it passes through the hillocks vertically, and, as they extend from the heart to the bark of the tree, we have something which produced on the wood the effect of a wave. When a log is sawn so as to show the eyes, it is known as bird's-eye maple, and when cut radially, so as to make the waves most prominent, it is called waved maple, or, in some places, curly maple. The wave pattern will almost always be found in any bird's-eye board by looking at the edge, and *vice versa*. Maple has one advantage which has been improved very little by cabinet-makers, and that is its susceptibility to staining processes. The supply of this wood is abundant, and, fortunately, it can be obtained in large size. Hitherto its principal value has been for firewood."

GILMOUR'S MILLS, TRENTON, ONT.

On May the 18th, 1881, Trenton was excited over the destruction of the Gilmour saw mill. The calamity was widespread as the withdrawal of about five thousand dollars weekly wages would affect every branch of business. For some time after our merchants especially were despondent, till work on the new mill was commenced. The number of mechanics employed all the year and throughout the winter has kept trade at its normal level. The capacity of the small mill was immediately increased by two upright gangs and run night and day. The shingle mill was started after New Years and run to its utmost capacity. The small mill has cut over two million feet of lumber this spring as much as the old mill could cut in the same time. The new mill is 172 feet long, 85 wide, 75x36 feet and south wing 120x36, two stories high and covered with painted sheet iron. The engine house is 50x26 feet having twin engines of 1500 horse power; the boiler house is 100x35 feet, having 16 tubular boilers, smoke flumes entering two chimneys stacks 120 feet high each. The Gehenna is a cylinder of iron 40 feet diameter at base, half way up it contracts to over half and rises 120 feet. Its inside will be lined with fire brick and in it will be concumed the refuse matter of the large mill. The engines were made by Macdougal of Montreal. and the boilers by three Toronto firms. The engine house and boiler house are distinct from the mill and from each other and both are destitute of a particle of wood. The walls are of brick and the roof of iron frame and sheet iron covering. The mill machinery consists of two twin circular slabbers, and one single circular slabber with a top saw for extra large logs. The twins were made by Wm. Hamilton, of Peterborough, and the single by Mr. Stearns, of Erie, Pa., all three have steam feeds. There are three immense gangs for cutting into boards made by Stearns, these are fastened to a foundation beam of oak built under twelve feet of stone work and are entirely separate from the foundation of the mill. They will cut at one time six logs of medium size, three wide and two high. The three circulars and three gangs will cut half a million feet in eleven hours. To edge the boards there are four double edgers made also by Stearns. Four lath machines are put in position to utilize the best part of the edgings, two heading machines to utilize the best of the slabs. The saws are all new and were supplied by Diston, of Philadelphia, and the belting by Hoyt of N. Y. The mill will be lit by six electric lamps and will turn out in the tour of 11 hours 500,000 feet of lumber, 200,000 lath besides headings. The refuse matter as it leaves the saws is carried to the lath room and there assorted by taking out whatever will make lath or headings, the rest is carried on to the Gehenna or large furnace which burns night and day. There are two tables for butting and assorting the lumber, which is loaded by machinery on cars drawn by two engines over six miles of elevated railway and believed in every part or the yard or to the vessels in the harbor. An average of 500 men will be employed causing a circulation of about $7,000 weekly. The mill will be tried this next week and will be in full operation by the first of May, some weeks less than a year since the old mill was burned down. The inexperienced is bewildered in the complicity of mechanism and wonders how it all can brought into harmonious action. Only a short while and the finest steam saw mill on the continent of America will be in operation in Trenton.—*Trenton Courier.*

DISPUTED TIMBER LOTS.

A correspondent of the Montreal *Witness*, of April 20th, says:—Further particulars have been learned of the trouble on Du Lievre River which necessitated a force of provincial police to be despatched to the scene, where they are stationed at present. The rumors circulated that Holland Bros'. mill, in Portland township, had been destroyed by indignant settlers is incorrect, but not wholly unfounded. The trouble is not with the settlers, but between the Ross Bros. and the Messrs. Holland, mill owners. The difficulty originated in the cancellation, which took place in 1878, of certain lots owned by Holland Bros. The property had been purchased from the Government of Canada (prior to Confederation), paid for in full, and the owners had been in possession of it for 15 years. The sale of this land was, some time ago, cancelled and the purchase money confiscated, and on the endeavor of Ross Bros. to operate on the property the trouble was caused, the men sent by the firm having met with a stern resistance by Holland's agents. Previously on the 5th of April, Ross Bros'. managers, with thirty-six armed men, made a descent upon the house of Holland's agent and demolished the structure. The agent immediately proceeded to Aylmer and entered an action against those implicated, and also against Ross Bros. themselves, as accessories before the fact. Constables are now in Portland to execute the warrant, and there will probably be some interesting litigation in Aylmer before the end of the difficulty is reached. In the meantime a squad of Provincial police has been sent to the seat of war to prevent bloodshed.

YOUNG'S POINT, ONT.

From Our Own Correspondent.

SAW LOGS.—Mr. Geo. Chalmers' drive of saw logs, P. Phalen, jr., foreman, is making very good progress down Jack's Creek; he expects to be in Stoney Lake in about 10 days. Mr. Chalmers' other drive, which started last week from Mud Lake, under the foremanship of Mr. A. Wynn, will not reach here for about two months, as they have a long road to travel; still they will be among the first drives of the season.

IMPROVEMENTS.—Mr. W. McGregor, of this place, has purchased from Widow Young the acre lot next to Kearney's property, and intends fencing and building a house on it this summer, to reside in.

THE LAKES.—The water on the Upper Lakes is now clear of ice. We expect the steamer *Cruiser* up here some day soon, to commence taking down cordwood, etc., to Lakefield.

LUMBER.—Mr. Chalmers is making a good many sales of lumber to farmers and carpenters from Lakefield and other places, for building purposes. There is evidently a boom in the lumber line.

PILING GROUND.—Mr. McGregor is having his men laying down the slabs from the saw mill on a rough part next the lake, and levelling it up, which will make a good piling ground for lumber, and will look very much better. The place was an eyesore to look at before this improvement.

GOOD HEALTH.—Keep the Stomach, Liver and Bowels in good order by the use of Baxter's Mandrake Bitters and perfact health will be the result.

WEAK LUNGS AND HOW TO MAKE THEM STRONG. Breathe with the mouth closed, have access at all times to pure air exercise moderately, eat nourishing but simple food, and take that best of all cough remedies, Hagyard's Pectoral Balsam, it speedily cures all throat and lung troubles of adults or children. Price 25 cents per bottle.

PITCH PINE FORESTS.

The *Timber Trades Journal* says there is one export commodity from the United States, however, which defies competition, and may be counted on to flow steadily towards this country *in secula seculorum*, and that is the pitch pine of the Southern States. From the accounts that have at various times appeared in these columns, and the recent statements of our special correspondent on the spot it appears that the forests of this timber are practically inexhaustible, as they are in a constant state of rapid reproduction by the new saplings everywhere arising to replace the old trees, and the swamps in which these forests delight to flourish offer no temptation to the husbandman to clear them away. Thus, unlike the forests of the north, they may be accounted perennial from the natural tendency of the land to reproduce them, and the want of motive to destroy the undergrowth for the sake of cultivating the land which produces it, and which civilization is not likely to require for ages yet to come.

Saw Logs Seized.

An Ottawa despatch says that four officers of the Quebec Provincial Police, in charge of Constable Burke, arrived at Buckingham by the North Shore train from Quebec, to aid in suppressing lawlessness prevailing among timber drivers on the Du Lievre. It appears that some land proprietor, through whose property a branch stream runs, has, in imitation of Mr. McLaren, refused to permit the passage of logs, and has engaged a gang of men to prevent the operations of men engaged in timber driving. Another report says the trouble arose from the absconding of a certain contractor or paymaster, and the lumbermen have taken possession of certain quantities of timber which they declare they will hold until their wages are paid in full.

Chatterbox.

We have received the January number of the *Original English Chatterbox* from the American publishers, Messrs. Estes & Lauriat, Boston, Mass. This is the children's magazine, par excellence ; containing 32 pages, and 16 full page illustrations each month. It has more than a million readers in England and America. For one dollar sent by a new subscriber, directly to the publishers, they will send, post paid, *Chatterbox* for one year and a beautiful steel engraving of a little girl puzzling over her first sum, and entitled "Ought and Carrry One." The engraving is 18x24 inches, and sells for $3.00, thus giving every new subscriber $4.00 worth for $1.00.

Bridging the St. Lawrence.

The *Northwestern Lumberman* says a bill has been introduced into the New York Legislature to incorporate the St. Lawrence River Bridge Company, for the purpose of constructing a bridge across the great river from Wadington, St. Lawrence county, New York, to a point in Dundas county, Canada. It will be about a mile long, resting in part on an island. It is intended that the Adirondack railroad extension into the Dominion shall cross on this bridge, and the completion of both road and bridge would open up a heavy lumber line between Ottawa and Albany.

HAGYARD'S YELLOW OIL is at the head of the list for all purposes of a family medicine. It is used with unprecedented success, both imternally and externally. It cures sore throat, burns, scalds, frost bites; relieves, and often cures asthma.

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopessa, Clergymen write us earnestly to it wonderful effects.

POPULAR DEMAND.—The great superiority of Downs' Elixir, over all other cough remedies, is attested by the immense" popular demand for that old established remedy" for the cure of Coughs, Hoarseness, Croup, Asthma, Bronchitis, Whooping Cough, and all diseases of the throat, Chest and Lungs.

WHEN DOCTORS DISAGREE, WHO SHALL DECIDE?—Nothing is more variable than the different opinions of medical men ; but when they fail to agree, or to preform a cure in a chronic disease, the patients often decides for themselves, and take Burdock Blood Bitters, and speedily recover. It is the grand key to health that unlocks all the secretions, and liberates the slave from the captivity of disease.

LUMBER WANTED.

50,000 Feet Tough White Oak, 50,000 Ft. White Ash, 50,000 Feet Rock Elm, all first quality ; quote price at Ayr station ; to be delivered by August, 1882. Specifications furnished on application.

Ayr Agricultural Works,
AYR, ONTARIO. 3L7

Timber Limits for Sale.

I offer Timber Limits Nos. 94, 102, 144, 145, 157, 163, 176 and 182 on the North Shore of Georgian Bay, for sale either "en bloc" or in single Townships of 36 square miles each.

GEORGE J. THOMPSON,
6L7 Winnipeg, Manitoba.

FOR SALE!

SASH, DOOR & FURNITURE FACTORY,
Situate on CANAL BASIN, OTTAWA.

Apply to PINHEY & CHRISTIE,
Barristers, Ottawa.

OTTAWA RIVER.

Grenville & St. Anne Canals.

NOTICE TO CONTRACTORS.

SEALED TENDERS addressed to the undersigned and endorsed "Tender for Timber for Lock Gates," will be received at this office until the arrival of the Eastern and Western mails, on THURSDAY, the 11th day of MAY next, for the furnishing and delivering on or before the 3rd day of October, 1882, of Oak and Pine Timber, sawn to the dimensions required for the construction of Lock Gates for the new Locks at Greece's Point, Grenville Canal, and the new Lock at St. Anne, Ottawa River.

The timber must be of the qualities described, and of the dimensions stated on a printed bill which will be supplied on application, personally or by letter, at this office where forms of tender can also be obtained.

No payment will be made on the timber until it has been delivered at the place required on the respective canals, nor until it has been examined and approved by an officer detailed to that service.

Contractors are requested to bear in mind that an accepted bank cheque for the sum of $300 must accompany each tender, which shall be forfeited if the party tendering declines to enter into a contract for supplying the timber at the rates and on the terms stated in the offer submitted.

The cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

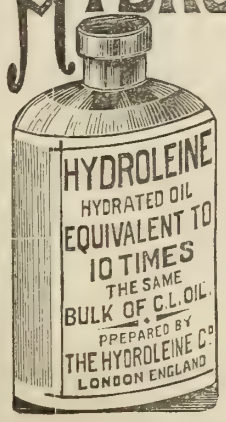
This department does not, however, bind itself to accept the lowest or any tender.

By order,

F. BRAUN,
Secretary.

Department of Railways and Canals, Ottawa, 15th April, 1882. 1L9-3d95-1aw

HYDROLEINE



(HYDRATED OIL.)
An artificially digested Cod Liver Oil.

For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

—o—

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artificial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation ;* this, at the same time, *renders its use economical* in the *highest degree.*

For sale by all Druggists.

Drake Brothers' Box Mill,

Provost Street Extension, New Glasgow, Pictou County, N. S.

SPRUCE, PINE AND HEMLOCK SHINGLES

F. H. DRAKE. 1L17 N. H. DRAKE.

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81 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. ☞No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

1L17 SAINT JOHN, NEW BRUNSWICK.

Has Facilities

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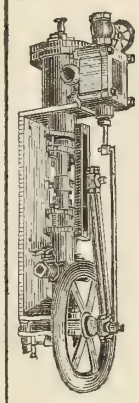

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ENGINEERS AND FOUNDERS,

MANUFACTURER OF

Steam Engines, Rotary Pumps, of all sizes, for Paper and Pulp Mills, Steam Pumps, and a Variety of other Pumps, Propeller Engines for Yachts & Tow Boats.

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Iron Railings, Hoisting Machines for Stores, Jack Screws, Park Mills, all kinds of Machinery for Mines, Saw Mills, Flour Mills.

St. Paul St., QUEBEC.

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MANUFACTURERS OF

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NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

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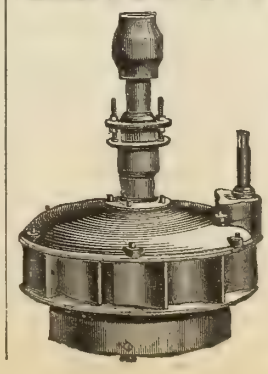

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Mill Machinery,

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PAXTON, TATE & Co.

Port Perry, Ont.

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THE ENGLISH TRADE.

Robert Coltart & Co.'s Liverpool wood circular, dated April 3rd, says :—There has been a quiet feeling in the wood trade during the past month, although the deliveries compare favorably with the same period last year, and the stocks, with the exception of pitch pine, are very light. Prices generally have been maintained, excepting for Norway flooring boards and pitch pine, both of which have been offered too freely in this market. The fine open weather which has so long prevailed has been very favorable to building operations, which have also been assisted by the easier state of the money market since the late reductions in the bank rate.

Colonial Woods.—Yellow pine—The stock of square timber consists of only 119,000 feet, against 725,000 feet at the same time last year, and 362,000 in 1880 ; the consumption of 60,000 feet during the month must be considered satisfactory at the present advanced prices, and with such a very small stock in the yards. Of waney board timber the consumption has also been good, and the stock is light ; sales have been by retail only. For red pine the demand is dull, and the present stock of 27,000 feet is sufficient for present requirements. The stock of oak logs consists of 264,000 feet, against 444,000 at the same time last year ; the demand, however, continues limited, amounting to only 32,000 feet during the month. Waggon oak scantlings, however, continue to be enquired for, the present stock having been reduced to 53,000 feet, and the consumption during the month amounted to 37,000 feet ; prices of prime quality rule from 2s 7d to 2s 9d per foot, according to specification. Elm and ash are in dull demand. The stock of birch timber is reduced to 81,000 feet ; against 140,000 at the same time last year ; prices have improved, and 501 logs, ex *Etta Stewart*, from St. John, N.B., realized at auction an average of 20½d per foot. The demand for Quebec pine has been quiet during the month, and the stock consists of 5,848 standards, against 9,151 standards at the same time last year. The consumption of N. B. and N. S. spruce deals continues slightly in excess of that of last year, but although the stock is very small, and the arrivals for some time are likely to be light, prices do not show any improvement, the latest sales being by private of St. John at £7 12s 6d per standard, and by auction St. John cargoes realized an average of £7 10s and £7 14s per standard. The present stock consists of only 10,464 standards, against 22,895 standards at the same time last year, and the consumption during the month amounted to 3,659 standards, against 3,541 standards. Quebec merchantable pine and puncheon staves continue to be enquired for. Palings are in fair request, and have been sold at 82s 6d per mille, for 5 feet 3×1, and 62s 6d per mille for 4 feet 3×1.

The arrivals since our last have been 19 vessels, 13,805 tons, against 17 vessels, 12,765 tons, during the corresponding period of last year, and 29 vessels, 14,632 tons, in 1880 :—

FROM 26TH JANUARY TO 31ST MARCH, 1882.

	Vessels.	*Tons.*
Quebec	Nil	Nil
St. John, N. B., &c	7	5,929
United States	23	19,260
Baltic	15	7,097
Total	45	32,286

FROM 26TH JANUARY TO 31ST MARCH, 1881.

Quebec	1	921
St. John, N. B., &c	4	3,374
United States	25	18,596
Baltic	7	2,711
Total	37	25,962

FROM 26TH JANUARY TO 31ST MARCH, 1880.

Quebec	Nil	Nil
St. John, N. B., &c	9	9,815
United States	7	5,543
Baltic	25	9,053
Total	41	24,411

A WASTE IN VALUABLE TIMBER.

The people of Leelenaw county, Mich., are becoming awakened to the demands for railroad facilities to develop the timber lands in the county, and are interested in the project for establishing a road from Traverse City to Carp Lake, Maple City, Burdick and the lake shore. The timber wealth of the county is represented as being enormous, and there is said to be enough in the townships through which the road would pass, if made available, to pay the entire expense of constructing the road, and to pay for handsome improvements on every farm, besides placing money in the pocket of every farmer and land owner along the route. The timber is largely hardwood. There are large quantities of cedar, hemlock, basswood, birds-eye maple, cherry, beech, birch, and a dozen other varieties. Some of these woods are highly valuable, on account of the demand and the excellent quality. Immense quantities of the choicest basswood are now destroyed in fallows because the settler must remove it in clearing his land for crops, and the same is true of the elm—of which there are some very monarchs—the birds-eye maple, etc. With regard to the latter wood about 10 per cent. of it is said to be of the most valuable quality, while it is instanced regarding the cherry that, recently, six 12-foot logs were sawed, which scaled over 500 feet each, and were almost entirely clear. These kinds of timber the farmers of Leelenaw are compelled to burn in log heaps while making room for the advances of agriculture, which action seems little less than a wasteful sacrifice. It is hoped that the railroad contemplated will go through, and that ample opportunities will be opened up for utilizing these extensive and valuable forests.—*Northwestern Lumberman.*

TREE CULTURE ON THE PRAIRIE.

With the advent of spring there is no question of more importance to city or country than the cultivation of trees on our prairie domains. The desirability of the great western prairies for homes, and their value as farming lands very largely depend on the successful cultivation of trees. The papers should urge this matter earnestly and persistently. It is not enough that it is the highest interest of the settlers upon prairie lands to begin at once the cultivation of trees around their houses and barns. They are not only inexcusably careless about this matter, but a very large population do not seem to understand the proper method of proceeding. I have known the same piece of land to be planted with seeds of various kinds of timber over and over again, and there is not to-day a solitary shrub or twig upon the land to indicate that a seed had been sown there. Yet the successful cultivation of trees upon our prairies is no longer in the hazy domain of theory or experiment, but has long since been demonstrated beyond all doubt, yet every season men expend large amounts of money and labor in attempting to start trees and fail, and become discouraged and give it up.

I have had considerable experience in this line, and will in a few words give directions, which, if faithfully observed, will invariably give results of the most satisfactory character. Prepare your ground thoroughly ; don't waste your time putting in trees on ground that is not thoroughly prepared. Do not put in seeds, nor trust to cuttings. Get cottonwood rootlets a year old. Plant the depth of an ordinary spade. Don't plow them in nor throw them in. Put in by hand. Press the earth well around them, so as to exclude air and sunlight. Get them in as early in the spring as possible. Cultivate them thoroughly during the summer and in nine cases out of ten you have got trees so thrifty and strong that they will stand the severest winter. All this is so simple that the most inexperienced man should find no difficulty in carrying it out. In a very few years a man can have ten or fifteen acres of timber around his house, and the winter weather will be as changed as though he had moved hundreds of miles further south. Then, and not till then, can the farmers in our northern regions raise stock successfully. If every prairie farmer would commence this spring and faithfully carry out the simple instructions above given for the next five years we should see such a revolution in the climate and conditions of the great Northwest as no man to-day dreams of.—*St. Paul, Minn., Pioneer Press.*

READY MADE DWELLINGS.

The *Northwestern Lumberman* says :—"We know of no enterprise in which a small amount of ready capital could be invested, by parties having a practical knowledge of building, to better advantage than in the preparation of ready made houses, prepared upon improved and acceptable plans, ready for shipment to points where they are to be set up. The enterprise would demand the preparation of a set of plans and elevations reduced by the skill of the engraver so as to be fully illustrated by wood cuts, or the cheap blue process, so as to enable the purchaser to form a correct idea of what he was ordering, and as well enabling him to suggest such changes as his personal taste or requirements might demand. * * * * *

It is no infrequent thing for inquiries to be addressed to the editor of the *Lumberman* from parties desirous of obtaining such buildings, one such inquiry in the fall of last year embracing a desire to obtain no less than 100 cottages. Recent inquiries were for cottages to be shipped to Winnipeg, one to Dakota, and one to Minnesota, and were it once known that parties held themselves in readiness to prepare them, we believe that an immense trade could speedily be built up. The enterprise would, of course, require a reasonable amount of capital, but probably not so large an amount as many might imagine, as orders would, in a majority of cases, be accompanied with at least a portion of the cost. It is a project which we are aware has been undertaken before, without resulting as advantageously as was hoped, but we are convinced that the present time is much more auspicious, and that the venture would prove a paying one to the wise experimenter.

FOREST PLANTING.

Between 1759 and 1830 the Dukes of Athol planted 10,000 acres with larch alone, and on their Blair and Dunkeld property the total number planted was 14,096,719, calculated at the time of planting to produce at the age of 70 years £6,500,000 as timber for naval purposes. An instance of indirectly remunerative fir planting is shown at Bournemouth, where some years ago plants of *Pinus maritima* were introduced in marshy land between Christchurch and Poole, which, spreading in all directions, partly by its own seed and partly by planting, soon gave the country the appearance of an American pine barren. The shelter and presence of these trees has been found so beneficial to invalids that one of the largest watering-places on the south coast has sprung up with almost unexampled rapidity, and sites which were formerly worthless have recently become extremely valuable. Similar plantations have been made elsewhere. M. Javal has planted 80,000 acres of the barren Landes of Gascony with seedlings of *Pinus maritima.* Others have planted lesser areas. In Madeira the same *Pinus* has been introduced, and now covers all the southern slopes above 2,000 feet, the inhabitants being almost entirely dependent on it for fuel.

IMMIGRATION AND LUMBER.

The Chicago *Northwestern Lumberman* has the following, which applies as appositely to Canada :—"An important indication of the prospective demand for lumber is the tide of immigration that is setting toward our shores and promises to exceed even the heavy volume of last year. A large proportion of the emigrants go forward to the new territories, and open up new farms, and require lumber for houses and improvements. As long as this emigration continues, lumber will be in extraordinary demand. And, besides, as long as a rush of settlers is developing new improvements, so long will railroad extensions keep pace with such development, causing another extraordinary demand for lumber, besides quickening all kinds of business. It is a volume that acquires a momentum that a slight obstacle cannot arrest ; and that's what's the matter with the lumber trade of the present epoch.

AUSTRALIAN FORESTS.

The London *Timber Trades Journal* says :—We have to hand the report of the Royal Commissioners for the Australian International Exhibition, which largely relates to the wood trade, and our connection with these distant colonies. Being the work of English commissioners, it does not enter so deeply into the subject of timber as it would if the work of Colonial commissioners. It is well known that these dependencies of the English Crown are not celebrated for their natural growth of timber, and that the colonists are importers of wood from Canada and the Baltic. The country from this must not be accounted treeless ; the explanation is to be found in the fact that the native timber, with small exception, is of the hardwood class, the imports consisting of softwoods. Bearing on this point we find that the colony of Victoria possesses State forests to the extent of 243,000 acres ; beyond this there is an area of forest lands, classed as "timber reserves," estimated at 395,600 acres. Two-fifths of the colony is set down as malle scrub, unavailable mountain ranges, lakes, lagoons, &c., in connection with which there is a considerable growth of timber.

In 1879 we find that New South Wales imported timber to the value of £318,189, and furniture and upholstery to the value of £36,141, and in the same time exported bark to the value of £14,999.

River Improvements.

Messrs. Pond and Humphrey and Governor Washburn, of Wisconsin, have been before the committee having in charge the river and harbor bill, pressing appropriations for the improvement of the Chippewa and St. Croix rivers, and the building of breakwaters in Lake Pepin. The amounts desired for improvements were $30,000 for the Chippewa, $25,000 for the St. Croix, and $10,000 for each of the breakwaters. The latter are designed to be 500 feet in length, and located, one at Stockholm and the other at Lake City on Lake Pepin. The amount desired for the Chippewa is to be expended in applying the revetment system to the protection of the yellow banks, near Durand, Wis. The St. Croix improvements are to be made between Hudson and Osceola, as the engineer may direct. —*Northwestern Lumberman.*

The Timber Trade in New Zealand.

It is satisfactory to learn, says the *Farmer*, that New Zealand is doing a "roaring trade" in timber. The quantity annually supplied from the forests of that colony is estimated to be about 400,000,000 superficial feet, the market value of which is about £2,000,000. The New Zealand timber merchants, who believe that their trade would be greatly increased if the manufacturers in the Old World were only acquainted with the strength and cheapness of their woods, have petitioned the Government, and we believe with success, to make experiments between the New Zealand timber and European oak. It is proposed to make the experiments in Paris, under the supervision of eminent foresters. The result will be looked for with interest.

Preventing Bush Fires.

The Brock, Ontario, Township council have passed a by-law for regulating the burning of brush, stumps, etc. It provides that no stumps, wood, logs, trees, brush, straw, shavings or refuse shall be set on fire by any person or persons in the open air within the municipality in or during the months of July or August in any year ; nor at other time or times during the year until after eight days' notice has been given to the owner or occupant of the adjoining property. Any person contravening the provisions of this by-law shall, in addition to any damages which may occur, be liable to a fine of not less than $2 or more than $50 upon conviction before a Justice of the Peace.

A writer from Elizabeth, N. C., says that there are hundreds of thousands of acres of what are called swamp lands in the coast region of that state, a large portion of which is thickly set with cypress and juniper timber. The latter is said to be the same as northern cedar. North Carolina cedar is used chiefly for cooperage, and is being extensively shipped north in the log for that purpose. Elizabeth City has a population of 3,500 and contains four saw mills.

The St. John *News* says that McLaughlin & Wilson have already commenced their spring sawing at Anagance. They have sufficient logs in their pond and vicinity for nearly two million feet of lumber, and will soon be in a position to fill all orders. James Mills, Esq., is placing a large quantity of pine deals at the station, ready for early shipment. These have to be hauled a distance of some three miles, which can be done more easily on snow.

Chips.

SINCE the opening of navigation over 35,000,000 feet of lumber have been shipped from Muskegon.

THE C. N. Nelson Lumber Company, at Stillwater, Minn., has just received an immense engine for its mill, the cylinder of which is 24×28 inches.

A WOODEN-SHOE factory at Green Bay, Wis., turns out a large number of sabots, at 35 cents a pair. They are made of basswood, and are smoked and dried.

Olive Hill and Carter Cave, Ky., are to be connected by eight miles of tramway, to facilitate the hauling of timber and lumber, and for other transportation.

THE *Mail*, of April 20th, says:—The steam barge *St. Peter* was released from Peach Island at noon yesterday, after lightering 90,000 feet of lumber. She is in Windsor reloading her cargo.

THE Hamilton *Spectator* says that Adam Inch, of Barton, has planted out thirty-three maple saplings, and intends to plant out one hundred fruit trees. His brother farmers should go and do likewise.

THERE has been a new lumber camp started near the railroad at Lake station, Mich., where logs are gotten out for shipment to Saginaw. Godfrey Dershua is putting in a tramroad to get in some 5,000,000 feet of logs.

THE Muskegon River has caused trouble by overflowing land, and the boom company will probably have to stand the damage. There are 20,000 logs in the river below Sand creek, and the others have not yet been let down.

THE State of Wisconsin, on March 21, sold at Westboro, Taylor county, 85,000 feet of logs, cut upon state lands. The logs run two and a half to the thousand, and brought $14.25, the highest price paid in that section this spring.

Ross & Co., of Quebec, are shipping board timber largely from Munising, Mich., to St. Ignace, the ultimate point of destination being European markets. It is said they will ship from St. Ignace about $1,000,000 worth of board timber.

NON-RESIDENTS who own land in the townships of Grant and Otto, Oceana county, Mich., are making things warm for the local timber thieves, through the courts, and in a style, it is tated, that will put a quietus on the moss-back pastime.

A LOG boom was broken at Minneapolis by a sudden swell in the river, and several million feet floated down past St. Paul. It is believed that not over 4,000,000, valued at $40,000, will be lost, and as the surplus is 100,000,000, this loss will not affect the market. The accident is the most serious one for years.

ON the farm of Nelson Tuttle, at Iona, Mich., the growth of a walnut tree was closely observed. It grew from the seed, struggling along unaided, and in 35 years it had reached a good size. It measured two feet in diameter at the butt. It was cut down this winter, and it is thought it would have grown a third larger with proper care and cultivation.

THE Ottawa *Citizen* says reports from up the river state that the agent of a big lumbering firm, who manages its business matters generally, not many days ago made the drive of 150 miles in one day and with one pair of horses. One of the team which did such splendid work died shortly after the end of the journey was reached. As the driver is well known to be most considerate to his cattle, it is evident that nothing but serious business considerations could have led him to force the willing brute to an overdue exertion of its strength.

IT is estimated that 100,000,000 feet of logs were cut on the headwaters of the Kennebec last winter, which, with the 15,000,000 feet to old logs "hung up" along the tributaries, will make a drive of 115,000,000 feet to be floated down the river. Last year the drive was the cleanest ever made, owing to the copious rains, and 150,000,000 feet of timber came down the Kennebec. Lumbering operations have this year been pursued under difficulties, owing to the long-delayed snowfall, but the drive will be started about the first of May, and the advance guard will reach Augusta in July or August.

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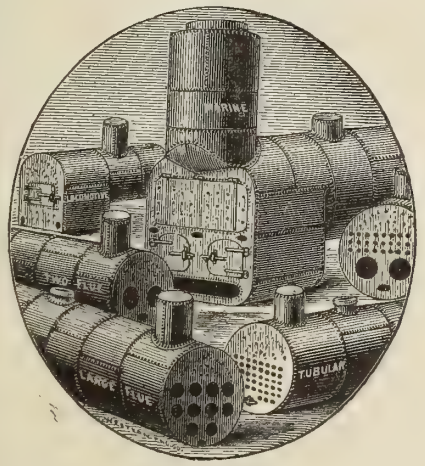

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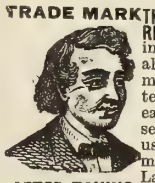

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JAMES EPPS & CO., Homœopathic Chemists,
London England. 1L14

Market Reports.

MONTREAL.

From Our Own Correspondent.

APRIL 22nd.—The weather during the past two weeks has been rather against building operations, consequently the demand for lumber has not been so active as was expected; however, as a number of extensive buildings are going up, we look for better times, more especially as the water is to be let into the canal next week, when stocks will be replenished and better selections can be made, as stocks here at the present moment are pretty low, and we note an advance in some lines on our late quotations. The present prices, ex yard, are as under:—

Pine, 1st quality, ₱ M.	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M.	14 00@15 00
Pine, cull deals, ₱ M.	8 00@12 00
Pine, mill culls, ₱ M.	8 00@10 00
Spruce, ₱ M	10 00@11 00
Hemlock, ₱ M.	9 00@11 00
Ash, run of long culls out, ₱ M.	16 00@18 00
Bass, " " ₱ M.	16 00@17 00
Oak, ₱ M.	35 00@45 00
Birch, ₱ M.	17 00@20 00
Hard Maple, ₱ M.	18 00@25 00
Lath, ₱ M.	1 50@ 0 00
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M.	2 00@ 0 00

But it is hard to say yet what future prices may be, as all will depend upon the quantity of lumber floated out.

EXPORTS.

Nothing is done yet in the way of exporting, but we hear of a large vessel being taken up for Montevido at $14. Small, handy vessels would bring about $2.50 more. There is a good enquiry for steam tonnage to England, at 50s.@ 55s. Owners of sailing vessels from here to London are asking 60s., which is relatively cheaper than from Quebec, as lumber is much easier handled here. Quebec rates for deals to London are 61s. 3d., and from Three Rivers 62s. 6d. Latest mail advices from Liverpool report a good consumptive demand for the month of March, with only moderate stocks. The following are late quotations in Liverpool for timber:

Quebec square white pine, per cubic foot,		1s 7d@2s 5d
" waney board pine	"	2s 3d@2s 8d
" red pine	"	1s 4d@1s 9d
" oak, first quality	"	2s 8d@3s
" oak, second quality	"	2s 3d@2s 6d

Deals—

1st quality Quebec pine, per standard,		£19 @£20 10
2nd " " "		£13 10s@£14 10
3rd " " "		£ 9 10s@£ 9 15

CORDWOOD.

Business has been exceedingly quiet during the past two weeks, buyers are waiting arrivals by boat, as prices are sure to be lower than by rail, the consumptive demand has also been very light. In the meantime our quotations at the Q. M. O. & O. Railway depot are nominally unchanged, as under:—

Long Maple	$6 50
Short "	6 00
Long Birch	6 00
Short "	5 50
Long Beech	5 50
Short "	5 00
Long Tamarack	5 00
Short "	4 50

TORONTO.

From Our Own Correspondent.

APRIL 24th.—Lumber sales on our local market, both from the cars and yards, have fallen off fully one half during the last two weeks; this is owing to two causes, viz., the continuance of the carpenters' strike, and the partial collapse of speculative building, and should the carpenters remain out much longer, this season's work will be spoiled beyond redemption, and the strikers will have themselves only to blame if they have to deny their families many of the comforts of life hitherto enjoyed by them. For some time yet to come the effects of the various strikes in Toronto will be severely felt, and I think it must be conceded that the master builders at least have offered all that could be reasonably expected of them.

Shipments by vessel to the American side have been active during the last two weeks, and cars have been fairly supplied to shippers, but much annoyance has been felt by lumber dealers in consequence of the dilatory manner in which lumber loaded on the line of the M. R.R. has come to hand here. In some cases as much as two to three weeks has elapsed from date of loading until arrival here. Shippers fail to see why it should take a longer time to ship from Midland here than to Liverpool or London, England.

Before closing up my list of factories, I would notice two or three more as being highly deserving of mention. The firm of John Kineely & Co., situated on McDonnell square, west of Bathurst street, has lately refitted up this large and commodious building, filling it with new and costly machinery, and they are now preparing large quantities of work for Manitoba. Both members of this firm being practical mechanics, all their work is turned out in good shape.

Mr. John Fletcher, of Yonge street, has lately erected a planing and sash and door factory. Some of the best work in this city has been done by Mr. Fletcher. The Grand Opera House, the Church of the Ascension, and many others, attest to his skill as a thorough workman.

Mr. Simpson has a snug little factory on Queen street west, near Peter street, in which a good staff of hands are generally employed on custom work, but the present strike has left him, like most others, with scant help.

I had almost forgotten to mention the highly respectable and pushing firm of Fox & Co. The notice of this firm should have appeared at an earlier date in my letters in order to have assigned them their deserved place in my list. This firm is composed of three practical men, each taking his allotted place, and filling it with profit to themselves and pleasure to those with whom they come into business contact. Their shop and offices are spacious and well adapted to their business, and a large quantity of work is turned out daily.

The last, but not least, which I will call your attention to at present is the pushing and energetic firm of Essery & Reid, situated on Lisgar street, at the west end of the city. This firm has also been preparing large quantities of sash, doors, etc., for Manitoba. One member of the firm contemplates removing there, I understand, in order to look after their interests personally, and will doubtless succeed in working up a good trade.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths.	12 00
" stocks	14 00
Scantling and joist, up to 16 ft.	14 00
" " " 18 ft.	14 50
" " " 20 ft.	15 00
" " " 22 ft.	15 50
" " " 24 ft.	16 00
" " " 26 ft.	16 50
Scantling and joist, up to 28 ft.	17 00
" " " 30 ft.	18 00
" " " 32 ft.	20 00
" " " 34 ft.	22 50
" " " 36 ft.	25 00
" " " 38 ft.	30 00
" " " 40 to 44 ft.	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks.	16 00
Picks Am. inspection.	26 00
Three uppers, Am. inspection.	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M.	2 50@3 00
XX sawn shingles.	2 75
Sawn Lath.	2 50

OTTAWA.

From Our Own Correspondent.

APRIL 24th.—A very few days more will witness the many saw mills in this locality in full operation, a small number having already begun. J. R. Booth's large mill at the Chaudiere Falls commenced running yesterday, being the first of the mills at the Falls to begin. Perley & Pattee's will be the next, and the others will follow in a short time afterwards.

NAVIGATION

has also opened, the first tow of the season having commenced loading lumber at Booth's dock to-day. In this connection a word or two will not be amiss concerning the work that has been carried on during the past winter in the shipyards around here, as it is directly connected with the lumbering trade. The boat building industry in this neighbourhood has increased to very

LARGE PROPORTIONS

as compared with past years. In his yard on the Hull side, Mr. J. R. Booth has had in repair his fleet, which is the largest on the Ottawa. He has also had constructed two new barges, each having a carrying capacity of 150 tons, or 260,000 feet of lumber. A fine new propeller has also been built for this same gentleman. This new boat will be launched in a few days. It is larger than any now

PLYING ON THIS RIVER.

She has a 90 foot keel, is 90 feet over all, 20½ foot beam, and a 9 foot hold. In Millar's yard three new boats have been built, besides a large number of barges.

Shantying operations are about completed, and all the teams have returned. Men are now being engaged for the drives, and carloads of Indians and others from Quebec are daily passing through the city *en route* for the scene of their work. While there is no marked

SCARCITY OF DRIVERS,

there is a want of hands for the mills about here, and good wages are of a consequence demanded. The cut no doubt will be larger this season than for many years past. A larger number of logs are expected to be successfully navigated to their destination, and higher rates prevail. The stocks in the yards now are very low. The cuts of a number of firms have already been purchased, but the prices paid of course are not known.

LONDON, ONT.

From Our Own Correspondent.

APRIL 25.—A week ago to-day the lumber merchants of this city held a meeting at which several very important business matters were discussed, among them was the one of prices, and it was unanimously resolved to advance the rates $1 per M. all around. This step was warranted by the advance claimed at the mills, not from any extra city demand, in fact the demand is not by any means brisk, and no building of any account is in operation, yet the prices fixed upon remain firm, and it will be some time before the figures come down again. As is usual at this season of the year, cedar posts are in great demand for fencing, in which there is great activity throughout our surrounding agricultural district.

Though the present is very quiet and inactive, a good spring demand is expected. The reason given in some quarters for the present lull is the scarcity of new brick, and consequent stoppage in building.

QUOTATIONS.

Mill cull boards and scantling	$12 00
Shipping cull boards, promiscuous widths.	13 00
" 10 and 12 in. stocks.	13 50
Common boards, promiscuous widths.	15 00
Scantling and joist, up to 16 ft.	16 00
" " " 18 ft.	16 50
" " " 20 ft.	17 50
" " " 22 ft.	18 50
" " " 24 ft.	20 00
Common stocks	16 00
Common 2 in. plank	15 00
Cutting up plank and boards.	20 00
Sound dressing stocks.	19 00
Clear and picks	28 00
Three uppers, Am. inspection.	35 00
¼ inch dressed and matched flooring	22 00
½ " " " "	22 00
¾ " " " "	22 00
1 " " " "	22 00
XXX sawn shingles, ₱ M.	3 25
Lath per 1000 feet.	5 00

MIDLAND, ONT.

From Our Own Correspondent.

APRIL 14th.—The lumbermen here report low water in the streams, and without heavy rains a quantity of logs will be hung up. Tate's mill here has been purchased by Messrs. McLeod & Cameron, and is now called the Midland Mill; they have already contracted for sawing 2,000,000 feet, and have daily applications for more; we wish them success. Dollar's mill will be managed again this year by Messrs. Frazer & Spooner. Chew Bros.' mills, the British Canadian Co. and Cook's mill will be all working to their full capacity in a few days. The British Canadian Company's new mill on Hugel Point will be one of the finest on the Georgian Bay, and will be fitted up with all the newest labor saving appliances. The building and fitting up of this mill is solely under the charge of Mr. Thompson. Navigation is expected to open here at once. The tug *Minnie Hall*, rebuilt this winter, was launched on the 12th of April. Five vessels are now reported from Chicago for Midland, grain laden. Mr. Peplow, of the Elevator Company, is now here getting his men ready for a busy summer. Garret's new planing mill and Clark's are also both hard at work. Building operations are now going on briskly; houses rise up almost like magic. About forty new dwellings are to be commenced at once. In business places, Burton Bros., of Barrie, have plans ready and broken ground for a block of stores and bank buildings, at the foot of King street, east side; estimates, about $13,000. N. Courtemanche has his plans ready, and is about to commence a large brick building adjoining his present premises; cost, about $4,000. Messrs. Spotten & Lummis, on lot 16, west of King, are commencing two stores and offices, to cost $6,000. H. S. Ruby has the frame erected for a store and bake shop, lot 11, west of King, and J. White will put up a store and dwelling on lot 3, East of King. I will report sales in my next communication.

A village report says that a company is about to begin work immediately here on the construction of houses to be shipped to Manitoba, every part to be prepared here. The company is said to have purchased here three and a half millions of dry lumber for the purpose.

ST. JOHN, N. B.

From Our Own Correspondent.

APRIL 21.—During the past week the weather has been more spring like, and the snow and ice have nearly disappeared from the fields, still it continues cold for the season; the ice is still quite strong in the river, but the water is rising, however, and we may expect the ice to run out some time next week. The prospects for river driving are good, and most of the logs are likely to come out of the streams in good season.

DEALS.

Deals are still held by city manufacturers very firmly at $11, and some are talking of even higher prices. Country sawn deals sell readily as they arrive at $10.50. The very low freights have a stimulating effect upon the price of deals, which is likely to rule high for some time to come.

FREIGHTS.

As was to be expected, after the extensive transactions in freights so early in the season, referred to in last report, a strong reaction has set in, and the market is now quite "demoralized." A large number of steamships have been on the market at extremely low rates, commencing at 57s. 6d., and rapidly diminishing until 47s. 6d. has been reached, which is the lowest figure that has ever been known here. It is not likely that rates will be any lower, and at the same time there cannot be much improvement for some time to come. No sailing ships are reported as having accepted these extreme rates.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows:—

For Europe	4,561,000 Sup. feet.
" United States	3,489,000 "
" West Indies	302,000 "

No shipments of sugar box shooks since last report.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations:—

John Black, 545, W. C. England, E. C. I., or Glasgow.
Argyle, 1,222, W. C. England.
Alma, 630, W. C. England.
Herlof Herlofsen, 766, W. C. England.
Oxo, 580, W. C. England.
Cedar Croft, 1,098, W. C. England.
Harfarfjord, 495, E. C. Ireland.
Kate Crosby, 696, E. C. I., W. C. E. or Glasgow.
Sidon, 410, E. C. Ireland.
Chrysolite, 1,097, Liverpool.
Antwerp, 573, ——
E. W. Gale, 298, ——
Albuera, 655, W. C. England.
Cherubini, (s), 1,161, United Kingdom.
Jothington, (s), 1,290, United Kingdom.
Lewis M. Lamb, 380, Bristol Channel.
Ophir, 813, Liverpool.
Serrano, 594, ——
M. A. Palmer, 299, ——
Brooklyn City, (s), 1,122, United Kingdom.
Benledi, (s), 999, Glasgow.
St. Joseph, 233, discharging.
Orontes, 740, W. C. England.

CHICAGO.

APRIL 22.—The *Northwestern Lumberman* says:—Orders at the yards in this city are arriving steadily, though not in what the dealers call a rushing volume. On the whole there is a fairly active trade. From every quarter comes the assurance that building in all the thrifty towns and cities of the west is active, and that more will be done in this line during the present than during the past year. The lumber business

is bound to be immense in any event, but how to buy is now a greater question than how to sell.

Receipts and shipments of lumber and shingles for the week ending April 20 :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882.....	32,637,000	7,697,000	42,456,000	12,545,000
1881.....	4,868,000	4,187,000	35,085,000	10,500,000

Receipts and shipments of lumber and shingles from January 1, to and including April 20th :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882..	172,463,000	61,513,000	505,919,000	190,115,000
1881..	60,841,000	26,018,000	298,952,000	113,500,000
Inc.	111,622,000	35,495,000	206,967,000	76,615,000

LAKE RECEIPTS TO APRIL 19.

1882	93,392,000	48,115,000	
1881	2,235,000	7,800,000	
Increase	91,157,000	40,315,000	

STOCK ON HAND APRIL 1.

	1882.	1881.	1880.
Lumber	279,324,096	322,491,234	263,452,581
Shingles	115,263,625	125,648,264	113,593,000
Lath	20,518,306	33,338,899	30,126,770
Pickets	3,802,011	1,589,064	849,238
Cedar posts	145,335	79,887	47,797

ALBANY.

APRIL 22.—Quotations at the yards are as follows :—

Pine, clear, ₱ M	$55 00@63 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in	00 26@00 32
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M	35 00@40 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@70 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 70

BOSTON.

APRIL 22.—The *Journal of Commerce* says :—The market does not show any particular change from last week. There is the same strong feeling at most of the western centres. Eastern buyers who have been looking around for some weeks past have in many cases returned without purchasing more than a few hundred thousand feet. The fact is that lumber dealers have made a good deal of money during the past two years and they can afford to be stiff with buyers. It is a question, however, whether this course will not do more injury than good to the market. There are a number of contracts out for large buildings, and when supplies begin to be called for things will be rather lively in this market. At present, there is a large demand for the most desirable grades. Shingles and laths continue in small stock. Hardwoods remain in moderate request and quite firm. Walnut is in short supply for choice stock. The following are car-load quotations :—

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@48 00
Common	20 00@22 00
Culls	14 00@15 00

OSWEGO, N.Y.

APRIL 26.—Receipts by lake for 1881 to date, 16,000,000, and for 1882 to date, 1,000,000. Trade is very brisk and prices firm. Canal rates, $1.75 to Albany ; $2.40 to New York. Lake freights, 90c. from Port Hope, and $1 to $1.10 from Toronto.

Three uppers	$42 00@46 00
Pickings	32 00@36 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	11 00@14 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@40 00
1¼ inch	34 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1½ inch mill run	18 00@25 00
" " " culls	12 00@15 00
1x6 selected for clapboards	25 00@40 00
Shingles, XXX, 18 inch, pine	4 00@ 4 30
XXX, 18 inch, cedar	3 00@ 3 50
Lath	1 60@ 2 25

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	13 00@19 00
Culls	13 00@14 00

LONDON.

The *Timber Trades Journal*, of April 8th, says :—At Messrs. Churchill & Sim's sale on Wednesday the attendance was good. With regard to the Quebec goods, 1st quality bright regulars stopped at £22, and for the various lots of this class no advance was obtained, though the seller tried his best to break the charm that kept bidders to this price ; still £22 is better than a sacrifice, but for goods not over-plentiful in the market, which ought to be, in proportion to their scarcity now, at £26 a standard, the value obtained at this sale is not encouraging. There was a more moderate tone on the upset values for reserved parcels than we have noticed before, but with the exception of one lot we believe the goods held in this way were left untouched.

LIVERPOOL.

The *Timber Trades Journal*, of April 8th, says :—There is no change in outward appearance of business, everything appearing to be very quiet, and were it not for the auction sales there would be little life in the trade. By these means, however, a good deal of timber of one kind and another has been forced off at low prices, especially pitch pine, and as the quality of the wood disposed of in this manner has been far from good, it has no doubt been the most judicious way to deal with it.

There has been no change in market prices, but a much firmer tone has shown itself in spruce deals, owing to the firm attitude of the manufacturers in St. John, N.B., and other deal-producing districts.

On Friday last Messrs. Farnworth & Jardine had catalogued a cargo of spruce deals to be sold during the luncheon hour at their mahogany sale, but the cargo was withdrawn owing to instructions from abroad, and they will not now offer any of these goods unless at a considerable advance. The stock in Liverpool is less than half of what it was last year at this time.

Several parcels of Quebec pine deals were sold at auction, on March 31st, at the following prices :—

	£.	s.	d.	£.	s.	d.
2nd quality bright—						
11 ft. 3×11	14	0	0			
10 " 3×11	12	15	0			
9 to 12 " 3×9 & 10	12	0	0			
3rd quality bright—						
10 to 16 ft. 3×12 & up.	10	10	0			
14 & 15 " 3×11	9	15	0	to 9	17	6
10 to 16 " 3×12 & up.	10	10	0			
13 " 16 " 3×11	9	10	0			
13 " 3×12 & up.	10	0	0			
12 & 13 " 3×12 & up.	9	10	0			

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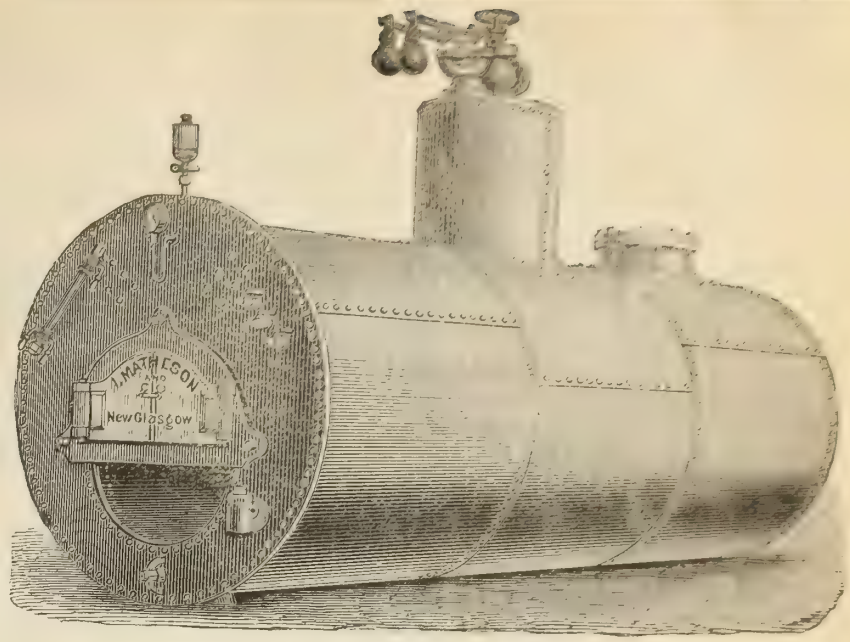

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Also Saw Gummers, Cutters, Double Upset Swages, and all Saw Tools.

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Can be adjusted without danger. You can take your saw off without taking the guide off the frame.

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RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.

HOYT'S CELEBRATED LEATHER BELTING.

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Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 1L21

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BOILER FLUID COMPOUND.

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This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

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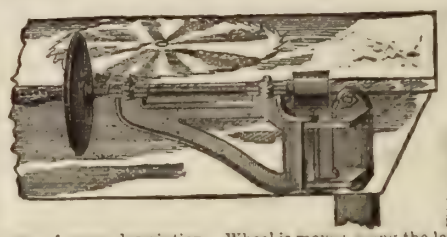

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Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Welsport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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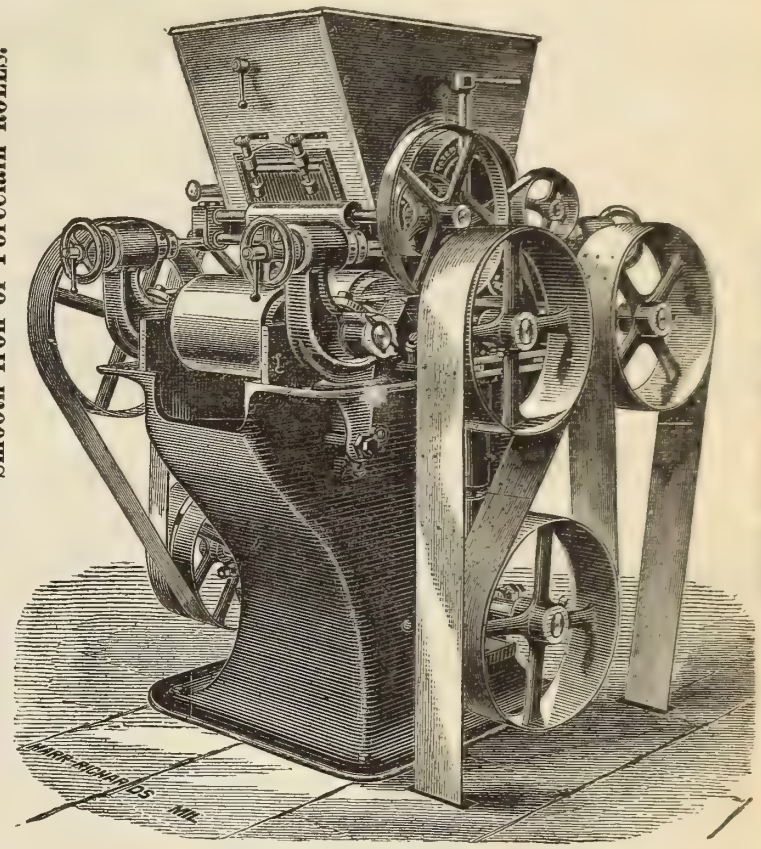

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I would also call special attention to my

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and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

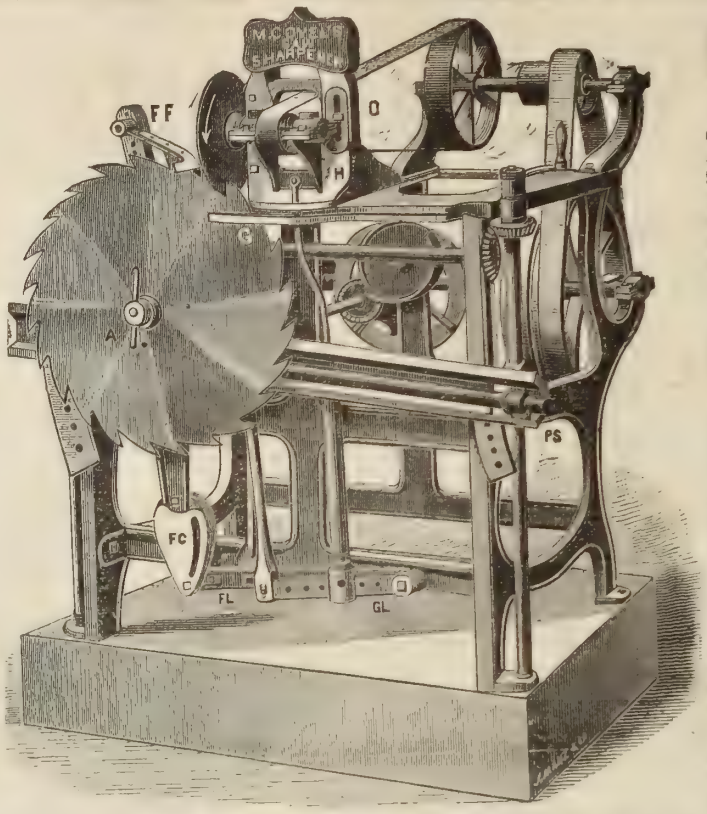
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



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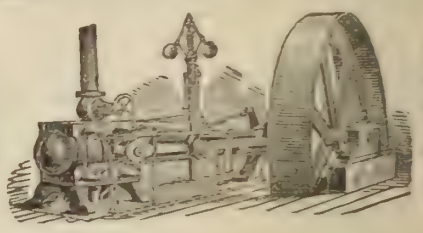

Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2¼ pounds of coal per horse-power per hour. 11tf

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EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS
TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ⅝ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ⅝ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } ½, ⅞ and 1 inch. Holes,

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1t8

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania

CANADIAN TRADE SPECIALLY SOLICITED.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President.
JAMES T. BARNARD, Hamilton, Secretary-Treasurer.
SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERSTON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

Toronto November 17th 1881

Messrs The Joseph Hall Manufg Co
Oshawa
Ont.

Gentlemen

When you were Manufacturing Engines and Mill machinery in 1872 you supplied me with all the Machinery for my Saw-Mill at Midland.

Every part of the work was strictly first class and gave me the greatest possible satisfaction. I never saw as good a lot of Machinery. The material was the very best quality and the workmanship unsurpassed. Until my Mill was burned and rebuilt I did not fully realize how entirely you carried out your agreement to do me a first class job

The Engines, Boilers, circulars, Gauges, and connections worked splendidly. In the erection of the Machinery we had no trouble everything was according to the plans and specifications furnished and was put together without alteration of any kind

I am pleased to learn that you have repurchased the patterns and plant you sold to the McGill Manufg Coy and intend to manufacture all kinds of Mill Machinery You shall have all the work I can send you

Yours very truly

W H Cook

President of the British Canadian Lumbering and Timber Co.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM

VOL. 2. **PETERBOROUGH, ONT., MAY 15, 1882.** **NO. 10.**

PRESERVING THE FORESTS.

At the first day's session of the Forestry Congress at Cincinnati a letter of some length was received from Richard von Steuben, the Royal Chief Forester of the German Empire. After expressing his sincere regrets at not being able to accept the invitation to be present, the writer said :—"There can be no doubt that every country requires a certain quantity of well-stocked woods, not only to supply the demands for building material and fuel, but more especially to secure suitable meteorological conditions, preserve the fertility of the soil, and out of sanitary considerations. The ratio of the minimum quantity and judicious local distribution of the indispensable forest to the aggregate area cannot be expressed by a universal rule, but the same can only be approximated by scientific investigation. Above all things, it is essential to prevent forest destruction where such would injuriously affect the fertility of the soil. It is important to preserve and to cultivate judiciously those forests which stand at the head-waters and on the banks of the largest streams, because through their indiscriminate destruction fluctuations in the stage of water, sand-bars, and inundations of arable lands are occasioned. In Germany, and especially in my more narrowly bounded fatherland, Prussia, it is regarded as of the greatest importance, not only to preserve the forests already there, but to extend them as much as possible. In the national appropriation bill, large sums are set apart for the purchase of such lands as are unfit for cultivation and for utilizing them in planting trees. In the German Empire 25.7 per centum of the aggregate area is occupied by forests, In Prussia the per centage of wooded land is 23.4 per centum of the entire area. Of the Prussian fosests about one-third belong to the State, which produce a gross income of about 25,000,000 marks.

"The Government foresters," continues the letter, "come within the province of the Minister of Agriculture and Forests. At the head of this department is the chief master of the forests. In each Governmental district is one forest-master, who serves as a member of the Governmental commission, and the entire forest area is divided into 680 principal forest districts. The forest government is devised with the minutest detail, and may well lay claim to being termed exemplary. It strives not only to utilize the forest as a source of income, but the Government forests are used to continually satisfy the requirements of the country. In order to obtain a situation as Government officer of the forests, a course of study of several years at the Forest Academy is required, after which follows about ten years' preparatory service before a definite engagement can be made, the qualifications for which must be proved by several examinations. Even for the minor positions in the Forestry Department, several years' apprenticeship and considerable preparatory service connected with the military service in the hunters' corps and two examinations are required. Besides the real Government forests, there are the forests of the Faithful Royal Veterans, Community Forests, Corporation Forests, &c." After explaining the Prussian and German laws relative to the clearing of timber land, the Royal Forester says: "It is evident that these Prussian regulations are not all applicable to the United States, as circumstances are so entirely different there. Unfortunately I am not sufficiently familiar with them to venture an opinion as to judicious measures to be taken for the protection of the forests, and it would have given me great pleasure to have informed myself on the grounds, and to have taken part in the deliberations. I trust you will grant me the favor to inform me of the result of your sessions, and consider me always ready to give all desired information concerning our forest arrangements."

"READY MADE" DWELLINGS.

A gentleman in Ottawa, Ont., has entered into a speculation which might profitably be taken advantage of in this region. It is nothing else than the construction of wooden dwelling houses in sections all ready to be put in position in readiness for occupancy. These houses being built at Ottawa, are intended for Winnipeg and other places in Manitoba, where they are to be transported on flat cars. Some of them are to be sold, and some of them are owned by the builder, who intends when they reach their destination to rent them as a speculation. The buildings are to be built in a substantial manner in sections to fit flat cars, and with a special view to being easily put together when they arrive at their destination. It is calculated that two or three men will be able to put one of these buildings together in a couple of days, which when erected, will be large enough for an ordinary family. The size projected by the gentleman who is entering into the speculation, as being most desirable and most convenient for transportation is 18x22 feet for the main building and a kitchen attached about 14 feet square. We can see no reason why this could not be made a profitable business investment in this vicinity. Lumber could certainly be procured at first cost, and the manufactured buildings could be loaded here for shipment to any portion of the great west. It is well known that buildings have and are being erected in some of the western territories, which are barren of native timber, from lumber procured at Chicago, which city gets a large proportion of its stock from the city and other portions of Michigan. As the buildings of the size alluded to could be built in sections, here, by machinery much cheaper than they could be constructed by hand from the rough, at the point of destination, and as the transportation of the completed building would cost much less than the rough material from which it is built, a project of the kind alluded to seems quite feasible, and could be made a paying business, from the fact that there would be no lack of demand at the points for which they would be intended. But the business would not be confined simply to supplying the territories into which lumber has to be imported, but a demand would undoubtedly spring up for them even in the thickly wooded countries all along the lines of the different railroads, because of their adaptability and cheapness, especially in cases where farmers adjacent to the lines of railroad reach a position whereby they are enabled to supercede their log huts of the pioneer days with something more convenient and attractive. The project is at least worthy of consideration by parties who have idle capital and are seeking an investment of the same, as it would not only furnish the investment sought, but probably a profitable source of employment.—*Lumberman's Gazette.*

RELATION OF FIRES TO THE WEATHER.

A recent issue of the *Chronicle* discusses from an insurance point of view the probable influence of atmospheric conditions upon fire losses, the main factor considered being humidity. The discussion, which is a very suggestive, not to say important one, is not confined to the generally recognized increase in local fires during specially protracted seasons of dry weather, but seeks rather to discover the broader relations of general rainfall throughout the United States, and the observed fluctuations in the agregate fire losses, year by year and month by month. "Assuming that the human hazard is a constant, and that the difference of states in respect to architecture and industry has been reduced by the law of average also to a constant. what is left to explain the increased or diminished aggregate fire loss of one year over previous years unless it be some meteorological pecularity ?"

Taking the statement of the precipitation, month by month, during the year ending with June, 1879, compared with the average for several previous years, as given in the last published report of the Chief Signal Officer of the United States, and using it as a basis of comparison with the fire losses in the same month of the two previous years, the *Chronicle* finds that an excess of humidity is steadily followed by a decrease in the fire loss, and a deficiency by a corresponding increase in the fire loss.

The same relation between rainfall and fire loss is strongly indicated in tables showing the periods of greatest and least fire loss in California, where the contrast between the wet and the dry season is so sharply drawn. Notwithstanding the fact that the wet months cover the season— the California winter—when domestic fires are most employed, thereby increasing the relative fire hazard, the monthly mean of fire loss for the wet season is only about half that of the dry season.

From these and other tests the *Chronicle* deduces the following conclusions :—

(1) That there is an interdependence between the humidity and the fire loss ; 2 that whatever affects the rainfall, such as the destruction of forests, etc,, will affect the fire loss ; (3) that there is a factor in the shape of an atmospheric hazard that should enter into the underwriter's calculations quite as well as the other elements of "moral" hazard, etc. ; (4) that there are localities peculiarly adapted by meteorological conditions to a high ratio of fire loss ; (5) that this natural hazard should determine. as nearly as practicable, the architecture of such localities, their means of fire protection, and the proper rate of premium for risks there written.

FORESTRY ASSOCIATION.

An interesting announcement comes from Cincinnati that the next meeting of the American Forestry Association will be in Montreal in August next. We presume this will be in connection with the meeting of the Scientific Association. It is to be hoped, however, that the benefit of this important gathering will not be lost in the shadow of the larger organization To make the event mark a new era in the regard of Canadians for their forest wealth, an exceedingly desirable result, some preparations should be made for it. On the return of the Canadian delegates from the present session of the Congress at Cincinnati, it will be in order to consider what form organized movement to this end should take. It might be a good plan to call a meeting of all interested in the matter to hear the delegates give a report of the session. By holding the meeting in Ottawa, and inviting members of both Houses of Parliament to attend it, a movement might be inaugurated all over the Dominion without very much trouble or expense.—*Montreal Witness.*

WOOD UTILIZED.

The *Northwestern Lumberman* says the ways by which wood is utilized in Maine and other New England States should teach the owners of hardwood timber in the Northwest that they have more wealth in their standing trees than they can afford to burn up in log-heaps, if they will only wait a few years till the car of progress comes along, and brings the capital, the genius and the tools. The following little mention shows one of the ways by which white birch can be turned into money. Richmond, Thompson & Co., at Jay, Franklin county, manufacture druggists' boxes of white birch, and a local report states that they now have on hand 1,800 cords of that wood which will be made up into this kind of packages. The same firm makes advertising fan-handles at the rate of 100,000 a week.

OTTAWA RIVER TOLLS.

TARIFF OF TOLLS TO BE LEVIED ON TIMBER, SAW-LOGS, &c., PASSING THROUGH THE GOVERNMENT SLIDES AND WORKS UPON THE OTTAWA AND ITS TRIBUTARIES.

Name of River.	*Name of Slide or other Improvement.*	*Per Slide or Improvement.* — *Red Pine, White Pine or Hardwood.* — *Per Saw Log.*	*Per Stick.*	*Per Crib.*	*Masts, Staves or Sawn Lumber, per crib.*	*Rate to Clear to foot of Chaudiere.* — *Red Pine, White Pine or Hardwood.* — *Per Crib.*	*Masts, Staves or Sawn Lumber, per crib.*	*Round, Flatted and Dimension Timber.* — *Also Railway Ties.*	*Special Rates.*
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.			
	For passing through—			1 00		1 50		Round, Flatted and Dimension Timber exceeding fifteen inches in mean diameter to be charged as square timber; and not exceeding fifteen inches in diameter to be charged half the rate of square timber on all works used.	Where no special rate is given for saw logs passing through Government improvements the tolls for Sidage or Boomage are to be levied on sixty saw logs as equivalent to a crib of square timber.
Ottawa	Slides at Roche Capitaine			1 00	1 50	3 50	4 50		
"	" St. Joachim Rapids			1 00	1 50	2 50	3 50		
"	" Calumet and Mountain Rapids			0 50	0 75	1 75	2 25		
"	" Portage-du-Fort			1 00	1 50	1 50	2 00		
"	" Chats			1 00	1 50	1 00	1 50		
"	" Chaudiere	1d.							
"	Chenaux Boom	⅓ ct., less 1-5 to mill owner	0 06						
"	Chaudiere Boom	"							
"	Carillon Dam	0 02		0 75	1 00				
Petewawa	Passing dams, piers and booms between Cedar Lake and Memo. Rapids	0 01		0 75	1 00				
"	Slide near Lake Traverse	0 01	0 03						
"	Slides between Lake Traverse and Trout Lake	1-60th of respective crib rate.		1 00					Dumoine Lower Improvements excepted.
"	Crooked Chute to Ottawa River			1 75		4 25			
"	Bois Dur to Ottawa River			1 25		3 75			
Madawaska	Ragged Chute and High Falls slide and improvements	0 03½		2 00	2 50	3 50	4 50		
"	Improvements below High Falls to Arnprior	0 01½		0 50	0 75	2 00	2 50		
"	Slide at Arnprior			0 50	0 75	1 75	2 25		
"	Retaining booms and piers in Chats Lake at mouth of River	0 01		0 25		0 40			
Dumoine	High Falls slide to River Ottawa	0 01½	0 15						
"	Below High Falls (Lower Improvements)			0 75					
Coulonge	Slide at High Falls	0 02		1 50	2 00			Eight Railway Ties to be charged as equivalent to one ordinary piece flatted timber at half rate of square timber.	
Black River	Slides at Black River	0 02		1 00	1 50				
Gatineau	Booms	0 02	0 06						

PRIVY COUNCIL OFFICE,
Ottawa, 3rd May, 1882.

THE GEORGIAN BAY.

A special correspondent of the Toronto *Mail* writes from Midland as follows:—

On the west side of the bay is P. W. McLeod's mill (formerly Tait's). He will bring the lumber and dimension stuff sawn at his mill across to the railway platform in the steam scow Pocahontas. A new mill is being built near this terminal platform for the British Canadian Lumber Company. The building is 52 x 140 feet; boiler house, 35 x 54 feet; five boilers, two engines, 18 x 24 cylinder, 180 horse-power. The cutting capacity of the mill is eitimated at 75,000 feet per day. No burner will be erected at present, as the waste material will be required for two years to fill up around the mill and level the piling ground.

It will be finished about the middle of May, will have two circulars—cost about $25,000. Another mill is to be built near the same site, also for the British Canadian Lumber Company, for cedar ties, cedar shingles, and posts. This mill is calculated to cut 2,000 ties per day; cost about $6,000. Further on, past the elevator, is Chew Bros., grist and shingle mill; next, H. H. Cook's mills, rebuilt. An engineer was taking a survey of the premises for the purpose of making a plan to send to Scotland for the inspection of the directors of the British Canadian Lumber Company. John Dollar's mills come next, outside the city limits. Then, near the old fort, on the river Wye, another mill belonging to the British Canadian Lumber Company. This firm will take out this season about thirty eight million feet. At Victoria harbour, still further east, are Power's mills; also John McDermott's; also the mills of Messrs. A. Cain, P. Christie, and W. Tanner before reaching Waubashene. The Waubashene mills, which were burned in August last, are being rebuilt, and will, when completed, be better than the former mills. The main building is 126 x 70 feet, with file-room 16 x 30 feet, and lath-room 20 x 60 additional. The engine-room is 20 x 32 feet, and the boiler-house 38 x 41—both the latter stone and brickwork. The burner for waste material is combined with the smoke stack by a smoke-box from the boiler-house. The burner is of iron plate 28 feet in diameter by 125 feet high, with a hood of wire-work 15 feet high. The machinery, which is manufactured by Mr. W. Hamilton, of Peterborough, consists of one circular saw, one slabbing gang, one large flat gang, one patent span circular, which expands to size of log, from 7 inches to 26, worked by steam feed, a small slab gang, two edgers, two trimmers, and lath mill. The whole is driven by two engines, with four steel boilers, equal to 350 horse-power, made by Thomas Wilson, of Dundas. The work is under the superintendence of Mr. J. C. Else, who has been foreman at the mills for eleven years. The mill will be one of the most complete and extensive in the country, and will cost about $90,000 when finished. After leaving Waubashene, Fessiston mills are passed—next Josiah Cain's, stock 4½ million shingles, and J. Campbell, also about 4½ million shingles. At Coldwater are H. Lovening's shingle mill, stock 5 million shingles; J. Brown do., 3 million; John Green saw and shingles, on North river, 3½ million shingles and 1 million lumber; J. Smith, on Coldwater river, 2 million shingles; Messrs. Wylie & Tait, three miles east from Coldwater, on the Midland Railway, stock 2 million shingles; James Hadden, five miles from Coldwater, gang and circular, 2 million lumber; Thos. Overend, Uhtoff, seven miles west of Orillia, 2 million shingles; Tasker & Lakins, ¾ miles from Uhtoff, 1 million feet. Andrew Tait is a large operator in Orillia in sawed lumber and shingles; the Oro Lumber Manufacturing Co., also have a new mill at Orillia. Railroad facilities have developed an immense trade in lumber and shingles in this section of the country, and utilized a large amount of timber which would otherwise have gone to waste. Mr. Crossin's railroad car manufactory at Cobourg is largely supplied with car sills, and oak and maple dimension stuff from Midland. An excellent quality of oak is obtained in that region. The traffic over the Midland Railway in 1881 was:—Lumber, 104,461,000 feet; timber 739,341 cubic feet; shingles, 63,318,000; posts and ties, 698 car-loads; firewood, 370 cords; wheat, 443,388 bushels; flour, 25,351 barrels; other goods, making a total weight of 237,845 tons. The total earnings for the year 1881 amounted to $404,360, being an increase of $57,925 over those of 1880. The traffic for 1882 will show a very much larger increase.

FOREST MANAGEMNT.

At the Forestry Convention held in Cincinnati recently one of the papers read was submitted by Prof. Brown, of the Ontario Agricultural College, Guelph, and was exceedingly well received. A summary of it as follows appears in the *Globe*:—

In South Australia the Government, under its Woods and Forests Board, have begun the conservation and replanting of the country most vigorously. In 1878 they passed "The Forest Tree Act" with special reference to the encouragement of tree planting. By its provisions the Governor can proclaim parts of the country to be "forest districts" for the purpose of inclosing and planting. A bonus of ten dollars per acre is given to owners for successful establishment of clumps during two years, not less than five acres, and if in strips, not less than 100 feet wide. A Conservator of Forests has been appointed. In five years they have enclosed and planted 2,617 acres at a cost of $100,000. The success is most gratifying. Seeds are collected; a number of nurseries are kept at convenient points; they have an experimental department; the various methods of seeding broadcast and in rows, of regular planting at various distances apart, and by natural reproduction. Weather records are kept; much of the success is attributed to the thorough use of the plough and cultivator; plants are given to owners of lands on certain conditions; several arboretums are being established; thinning and pruning are systematically attended to; "fire breaks" are ploughed in proper season; and last year the Government distributed free to settlers a treatise on tree cultivation, got up by the Conservator, and their annual report is very interesting and valuable.

I have pleasure in laying on the table a copy of the Conservator's latest report and his Treatise on Tree Cultivation.

AN EXAMPLE OF REVENUE FROM SCOTCH PLANTATIONS.

There is always some value to be gathered from the experience of others, even when conditions differ very much, and while Scotland will compare favorably with it, America as regards moisture, being propitious for the life of certain kinds, it can not do so with reference to rapid growth through climatic and soil conditions.

The writer had the management for ten years of a Highland property extending to 135,000 acres, which embraced every possible condition of plant and animal life, from good wheat production up, or down, to the lowest form of lichen, four thousand feet above sea level.

I have often thought that were the Americans aware by actual personal experience of the difficulties that surround most branches of British rural economy there would be less quarrelling and more stay at home amongst us.

The cultivation of trees in Britain, while a matter of mark in her history, has been, and still is, one of expense, and the knowing how to labor and to wait.

In Scotland, especially, the reclothing has been very extensive and successful. Land that fetched only 8d an acre for sheep grazing, or 1s for a deer forest, has been, under skill and capital, brought to produce a clear annual revenue of fifteen times these amounts—by tree crops.

Beginning in 1855 I planted annually, on an average, for fourteen years, one and a half million larch and Scotch pine, among the heather and granite of Banff and Aberdeenshire.

Our process was simply to enclose with wire fence from three hundred to one thousand acres, in districts where direct shelter, ornament, and climatic amelioration, with the best chances of economic results, were necessary and most likely to be secured. Drainage was thoroughly done where required. Planting carried out by day labour, never by contract, under skilled foremen, one man, under average conditions as to soil and size of plants, notching as many as one thousand a day. Trees were sized according to height and exposure of the ground, and not less than three thousand per acre—aiming at four feet apart all over. Pitting was necessary only with the larger hard and Scotch pine, or with hardwoods. We always had the best success with small plants, seedlings, with conifera on the exposed parts, and not more than two years transplanted in any case.

Thus the Highlands of Scotland are to-day in possession of many thousands of acres, producing a handsome revenue that twenty years ago made a poor show on the rent rolls; average cost, £3 1s. per acre. I submit a printed statement of six years' revenue from the older plantations of a highland property.

The above was illustrated with a printed table, many copies of which were on hand. The same gentleman also read a short tract containing "Suggestions concerning a Text-book on Forestry," presenting with it the table of contents printed, such as he thought it should have.

Worth Mentioning.

When anything worth saying is spoken in that terse and pointed way that bears the impress of honest conviction, we like to have people know the nature of the communication. Of such a nature is the following from Mr. W. F. Haist, Camden P. O., Lincoln Co., Ontario. Mr. Haist says: "With great joy over my restored health, I would write a few lines concerning that wonderful remedy, St. Jacobs Oil. For the last six years I have been using various medicines internally and externally, but nothing would help me. Finally I procured a bottle of St. Jacobs Oil, which cured me after a few applications. My mother-in-law, who has also been a great sufferer from rheumatism, was also relieved by the use of the Great German Remedy. St. Jacobs Oil is a great blessing to suffering humanity, and I shall do everything in my power to make known its merits.

HOW TO MANAGE THE MISSISSIPPI.

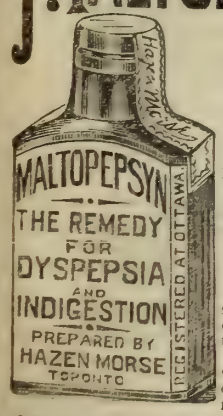
The distinguished German engineer and traveller, named Chevalier Ernst Von Hesse Wartegg, has been making extraordinary suggestions about the Mississippi river inundations. He says that levees on the Mississippi river will be money thrown away, and that the $100,000,000 already spent in that way has been totally ineffective. He says the way to make the Mississippi behave is to help it in the effort it is making to shorten itself toward the Gulf. In 1721 the distance from Cairo to New Orleans was 1,215 miles, and to-day it is 240 miles less than that, or only 974 miles. He says Red River ought to be drawn off from the Mississippi, and allowed to run to the gulf through the Calcasieu river, which would be only 80 miles instead of 500 miles it has to pass through to the Mississippi. Both the Ohio and the Red river are a barrier to the rapid current of the Mississippi. The Wachita ought to be connected with the Atchafalaya, and let off to the Gulf that way, instead of embarrassing the Mississippi. The Mississippi itself ought to be connected with Lake Borgne, as proposed by Captain Cowden, which would draw off one-tenth of the whole body of water. He says that the River Po, in Italy, which has magnificent levees, is regularly inundated, and that the tendency of these levees is to raise the bed of the river by depositions in it; so that the Po, the Mississippi and many other streams with artificial banks really run on a high ridge of land, from which they inevitably overflow the surrounding country. He says levees from Cairo to New Orleans would cost $100,000,000, and would meet with the same fate as the others, and that artificial means cannot keep the tremendous river within bounds, and the only way to do it is to aid nature to find the straightest way to the gulf.—*Northwestern Lumberman.*

THE Canadian supply of hemlock bids fair to become an interesting question in the States. The oak forests supplying American tanneries are principally in Tennessee, Kentucky, and in Northern Alabama and Georgia. Large quantities are also imported from Canada. Forty or fifty years ago all the hemlock tanbark used there was taken from the forests in central and northern New York. The supply there has been exhausted, and the raw material is now sought for further west. This tree does not perpetuate itself, as does the oak, and the destruction of a tree represents an absolute curtailment of the available supply. If the plan to compress and export oak tanbark proves successful, it is highly probable that the inroads which will be made upon the southern oak forests will reopen the question of their ability to reproduce fast enough to hold their own against the demands of commerce.

MALTOPEPSYN

AN

Artificial Gastric Juice.



A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do) then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

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The conditions to be that a line of telegraph communication is to be kept up between Winnipeg, Humbolt, Battleford and Edmonton, and that Government messages be transmitted free of charge.

The parties tendering must name, in addition to the lump sum they are prepared to give for the telegraph line, the maximum rate of charges for the transmission of messages to the public.

F. BRAUN,
Secretary.

Dept. of Railways and Canals,
Ottawa, 18th April, 1882. 4d95-1aw-2L9

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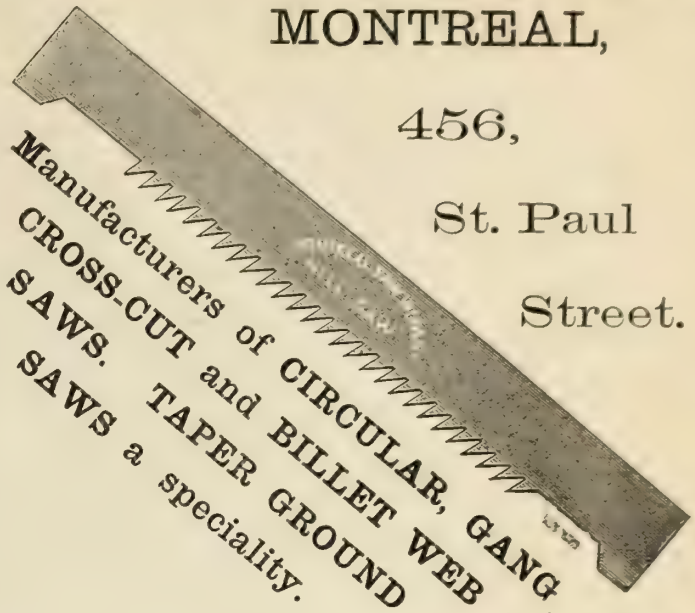

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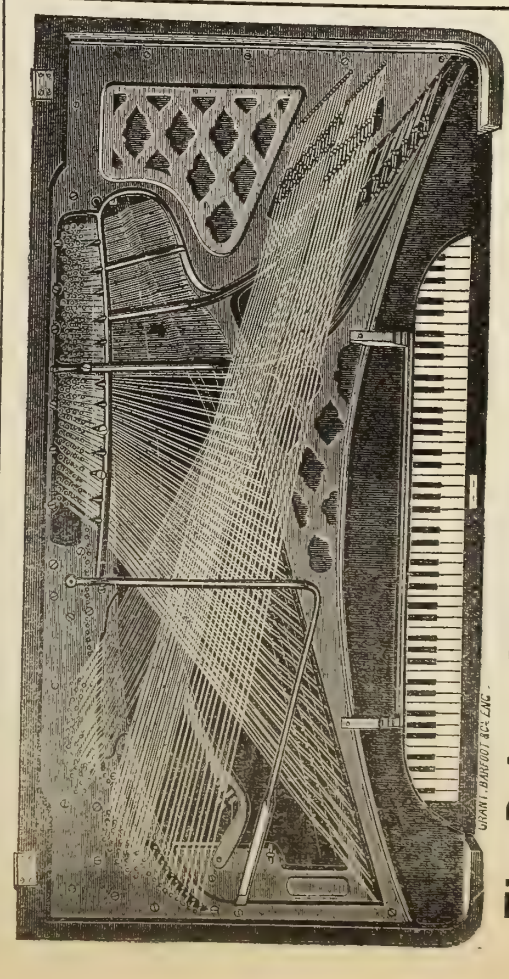

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THE DESTRUCTION OF FORESTS.

The remark is made by a Texas newspaper that "one of the strongest arguments in favor of preserving forests is to be found in Chinese history. The terrible famine which raged in that country several years ago, was brought about by the destruction of the few forests left standing, thereby rendering it impossible for the soil to retain the little rain that fell from time to time."

Notwithstanding the scientific theory and facts involved, the destruction of trees continues in many sections where this element of protection is largely lacking, without much concerted effort toward reforesting the land, and it is not the manufacture of lumber that relieves the country of timber so much as the reckless slaughter of trees that is made in wooded regions for the purpose of clearing lands, and where the timber is burned up or disposed of wastefully. Since the forests must continue to be drawn upon for lumber supplies to answer to a necessary want universally felt, whatever timber is wilfully destroyed and diverted from the channel of lumber manufacture, with no object beyond getting it out of the way, will produce that much shortage in the reserve supply of timber, and the conquest of the saw mills will simply be hastened to an earlier consummation. While it is a fact that trees serve one of nature's offices in permitting moisture to be readily retained in the soil, and are naturally a necessity in many ways, it is still true that so far as the question of lumber goes, the exhaustion of the tree supply of the world would be less felt in the latter direction than in any other. When it comes to a matter of absolute necessity, a substitute could be found for lumber in nearly every line of its use, if not all of them, but the natural advantages to land accruing from forests, can, in no other way, be secured. Hence the proposition of the lumber needs of a country is almost the smallest argument in favor of forestry projects for retimbering localities. One of the best moves that could be made would be to inaugurate a more practical government policy than is now in operation to prevent a wrong use of timber and its reckless destruction, a move fully as important as that land pre-emptors should be required to conform to the tree-planting law; for while in the one case much care, effort and time is required to grow forests, in the other case they are already grown, and it is only necessary to properly husband the supplies. Preventing the destruction of trees to-day is an act performing the same service that age would accomplish, for trees don't grow with the same celerity as garden vegetables. Prevention is better in this case than raising small trees for transplanting.—*Northwestern Lumberman.*

A STEAMSHIP WITH A CARGO OF SQUARE TIMBER.

The *Timber Trades Journal* says the most novel feature of the present year in regard to the wood carrying trade is probably the arrival here of a large, well-appointed steamship from Penascola with a complete cargo of pitch pine timber.

The question not unnaturally suggests itself, can vessels of this character be profitably employed in bringing timber in large logs? The *Deepdale*—for so the vessel we refer to is called—belonging to Sunderland, arrived in the Surrey Commercial Docks on Saturday last, after a very protracted voyage from West Florida. Running short of fuel she had to call at Halifax on her homeward voyage, to coal, a proceeding which took her considerably out of her course. It is true that this delay had nothing to do with the description of the cargo she had on board; but, judging from other circumstances, it is evident that, as steamships are at present constructed, timber in large logs will not pay as a freight. Cargoes, as in this case, of part timber and deals may be carried when a ship of the kind finds herself at a timber port with no other freight to load home, and it becomes a question of loading ballast or taking what the port offers in the way of merchandise, which was most likely the condition of affairs with regard to the *Deepdale*. But that log timber will become a recognized freight for steamships is, we imagine, a long way from accomplishment yet. We understand this vessel was three weeks loading at Penascola, working the fore and aft hatches; taking the logs aboard piece by piece, and we can hardly imagine that she could accomplish her task any quicker, for in the Surrey Commercial Docks, where every facility is afforded for quick discharge at the rate of a piece a minute, the authorities expect to take quite a week to empty this vessel's hold. We watched the *Deepdale* discharging as she lay in the middle of Canada Dock, and reckoned that the pieces being hoisted out of the hold by a crane forward and another aft did not occupy much more than the time mentioned, and yet the process appeared tedious. The huge logs raised out of the hold by the cranes were lowered steadily on to the gunwale, and let glide into the water, end first, with a mighty splash, where they disappeared for a short time, the impetus from such a fall carrying them a considerable distance below the surface. If this simple mode of getting clear of the stuff was to take a week or more, it was evident that the task of loading and stowing logs of the kind must have been a protracted affair.

Steamers, like horses, in idleness, eat up the profits by their expensiveness, and on rapidity of taking in and discharging their cargoes depends their ability to compete with sailing ships in carrying deals. To steamers, celerity is almost a vital point, and it is the difficulty of getting hewn timber, in heavy pieces, quickly in and out, that will, we expect, keep this portion of the wood-carrying trade for a long while to come in the hands of sailing ships.

Of course bow and stern ports would make a vast difference in the way of affording better facilities for loading and discharging heavy timber, but, as most steamers are built in watertight compartments, another difficulty would be presented, though for ordinary average timber it would not seem impracticable to get it on board through bow or side ports. Until something is done in this respect, there will always be the same delay in shipping large timber down the hatchways. It is true that a crane will raise a log of a ton weight with just the same facility it will a ton of deals, but when the latter is unloosed from the slings it can be handled with ease, and distributed in the hold quickly, while on the other hand the log is just as much an obstacle when lowered into the cramped space of a steamship's hold as it was on shore.

The *Deepdale*, it is stated, is the largest steamer with a wood freight that has ever entered the Surrey Commercial Docks, and is calculated to have on board nearly 900 standards of timber of one kind and another. The number of logs of pitch pine are reckoned at something like 4,000, while she has for stowage between 2,000 and 3,000 deals, &c. The bulk of her cargo consists, however, of sawn logs of the usual full average; and one thing can be said of her, that, if she has been a long time about it, at any rate she brings a cargo equal to that of three ordinary sailing ships. That her arrival here with pitch pine logs will form a precedent in the establishment of a carrying trade by steamers of large timber we consider very unlikely.

BOARD OF TRADE RETURNS.

The *Timber Trades Journal* says:—Those who call to mind that at this time last year the Baltic and Swedish ports were still shut up with ice, and that this year many of them have been scarcely closed at all, will not be surprised to learn, from the Board of Trade returns, that the timber importations for last month are nearly double the amount of those of March in 1881. In that month the sum was 96,455 loads, in the month just passed (March) 189,371 loads, which looked as if, beginning so early, we were in the way to have an overstock by the end of the season. The excess in the first three months of 1882 over the same period in 1881 amounts, in fact, to 130,584 loads—rather formidable figures, but by no means alarming or unprecedented, for as recently as 1880 the importation up to the end of March reached the total of 529,694 loads—that is, 195,767 loads more than in 1881, and 65,183 loads more than the first quarter of the present year.

From these comparisons it will be seen that while we are naturally surpassing the fettered trade in foreign timber of last spring, we are, with every advantage in favor of early importation, following at a modest distance the footsteps of the trade in 1880, with a palpable interval between, which precludes the likelihood of our speedily overtaking it.

We put these little calculations here to show that, "as far as we have got," as Artemus Ward would say, the importation cannot be considered in any degree excessive, and that the timber trade is therefore *prima facie* in a very satisfactory condition.

The following are the figures furnished by the Board of Trade:—

MONTH ENDED 31ST MARCH, 1882.

	Quantity.	Value.
Timber (Hewn).	*Loads.*	*£.*
Russia	940	6,032
Sweden and Norway	39,416	57,497
Germany	3,702	13,231
United States	16,959	54,129
British India	9,962	126,270
British North America	466	1,359
Other Countries	29,968	36,588
Total	101,413	295,106
Timber (Sawn or Split, Planed or Dressed).		
Russia	1,947	4,330
Sweden and Norway	51,079	132,794
British North America	9,854	26,593
Other Countries	25,078	80,547
Total	87,958	244,264
Staves, (all sizes)	4,540	28,809
Mahogany (tons)	2,743	24,592
Total of Hewn and Sawn	189 371	539,370

THREE MONTHS ENDED 31ST MARCH, 1882.

Timber (Hewn).		
Russia	7,164	21,520
Sweden and Norway	80,366	124,223
Germany	10,175	31,979
United States	34,073	113,837
British India	15,475	196,192
British North America	972	3,237
Other Countries	89,676	102,283
Total	237,901	593,271
Timber (Sawn or Split, Planed or Dressed).		
Russia	18,521	43,291
Sweden and Norway	116,599	311,409
British North America	42,003	105,528
Other Countries	49,487	160,910
Total	226,610	621,138
Staves (all sizes)	13,193	84,415
Mahogany (tons)	6,474	57,886
Total of Hewn and Sawn	464,511	1,214,409

WOODWORK THAT WILL NOT BURN.

In a London paper is published a letter from Mr. F. H. Gossage, who makes some very important statements. He says: "I find that painting woodwork of any kind with several coats of solution of silicate of soda, and finishing off with a mixture of this solution and sufficient common whiting to make it about as thick as ordinary paint, is a most excellent protection against fire. Wood treated in this way will not take fire from mere contact with flame; it requires to be heated till destructive distillation begins. Then, of course, gases are given out which ignite, and the wood is gradually converted into charcoal, but until destructive distillation takes place the coated wood will not support combustion. A few years since I had some screens made like ordinary doors, some prepared as I have described, and some not. They were then placed over a fire of shavings, which was kept constantly renewed. In ten minutes the unprepared screens were blazing away, and so nearly consumed that they had to be supported by an iron bar. The flames continued to lick the prepared screens for 30 minutes before the distillation commenced. After 45 minutes the coated screens were still intact, and able to support themselves; and in an hour, although pierced in many places with holes, they held together, and when the fire was removed they did not continue to burn. This was a splendid success, and I still have the remains of the screens. The experiments were made at my suggestion, for the managers of the Liverpool Philharmonic Society, and the woodwork of their splendid hall at Liverpool was treated in this manner. I am sure a good deal might be done with this simple and inexpensive process to reduce the possibility of fires, especially in public buildings, theatres, etc., for, if the woodwork was thus treated, draperies and scenery would burn away before the heavy timberwork of the structure would take fire."

"CUTTING THE KEY LOG."

The first thing to be done is to find out where the jam occurred, and then to discover what is called the "key log," that is to say, the log which holds the base of the "jam." An old experienced "stream driver" is soon on the spot, for the news is soon carried up stream that there is a "jam" below. Every minute is of consequence, as logs are coming down and the "jam" increasing in strength. The "key log" being found, there is a cry for volunteers to cut it. Now, when you consider that there are some hundred big logs of timber forming a dam, and the instant the key log is cut the whole fabric comes rushing down with a crush, you will see that unless the axe-man gets instantly away he is crushed to death. There are usually in a camp plenty of men ready to volunteer; for a man who cuts a key log is looked upon by the rest of the loggers just as a soldier is by his regiment when he has done any act of bravery. The man I saw cut away a log which brought down the whole jam of logs was quite a young fellow, some twenty years of age. He stripped everything save his drawers; a strong rope was placed under his arms and a gang of smart young fellows held the end. The man shook hands with his comrades and quietly walked out on the logs, axe in hand. I do not know how the loggy-road one felt, but I shall never forget my feelings. The man was quietly walking to what very likely might be his death. At any moment the jam might break of its own accord, and also, if he cut the key log, unless he instantly got out of the way, he would be crushed by the falling timber. There was a dead silence while the keen axe was dropped with force and skill upon the pine log. Now the notch was near half through the log, one or two more blows, and a crack was heard. The men got in all the slack of rope that held the axe-man. Like many others, I rushed to help haul away the poor fellow, but to my great joy I saw him safe on the bank, certainly sadly bruised and bleeding from sundry wounds, but safe.—*The Field.*

A DIFFICULTY OVERCOME.

The Little Quinnesec falls, on the Menominee river, have for years past caused great damage to logs passing over them. The falls have a descent of 75 feet—not perpendicular, but on an angle of 45°—over a rough and ragged ledge. The damage caused to the logs has been variously estimated at from 10 to 20 per cent. The Menominee River Manufacturing Company, during the past five years, has expended upwards of $8,000 in blasting the ledge and building breakwaters to lessen, if possible, the damage caused to the logs. Nothing that it did, however, seemed to obviate the difficulty. During the past winter the Hon. I. Stephenson conceived the idea of cutting a canal through the solid ledge along the side of the falls. The survey was made, the amount of rock to be excavated ascertained, and the probable cost estimated. The plan seemed feasible, and the board of directors of the above named company authorized Mr. Stephenson to go on and complete the canal. Work was commenced in February, and pushed with such vigor that the undertaking was near completion when the rise of the river prevented further work at present. But the canal, or cut, was so nearly finished that when the cofferdam at the head was removed, which was on April 19, it was found to work like a charm—all logs running in the river passing through the cut without any damage whatever. The cut is about 300 feet in length, 40 feet wide at the entrance, and narrowing down to 20 feet at the terminus. The average depth of the cut is about 10 feet. The cost when completed will be about $15,000.—*Northwestern Lumberman.*

THE SUPPLY OF TIMBER.

The *Northwestern Lumberman* says the supply of cedar, while not exhaustless, is happily such as to lead to no well-grounded fear of a scarcity for many years. Vast tracts of cedar lands are to be found contiguous to the Huron shore of Michigan, while no inconsiderable quantity exists in the less settled upper peninsula. The islands of Lake Huron are many of them loaded with it, while those of the Georgian Bay, on which this timber predominates may be number by the score. One of these islands is estimated to cut no less than 50,000 telegraph poles and 500,000 railroad ties, besides innumerable posts, and is but one of the smallest islands of the bay, at that. The islands and much of the

mainland of Lake Superior are rich in their growths of cedar, vast quantities of which are found in the neighbourhood of Prince Arthur's Landing, upon the Canadian side of that lake, and can be made available for use in the vast treeless region west of Winnipeg, by means of the Canadian Pacific railroad, which of itself will prove one of the most extensive consumers of it in the building of its track for many hundreds of miles, and until the timbered lands of the Rocky Mountain range can be reached. The Michigan and Wisconsin shores of Lake Michigan may be depended upon for a wealth of cedar supply for many years, while the interior railways of Wisconsin are well located for transporting the immense quantities which grow luxuriantly in the northern part of that state.

STRAW FOR FUEL.

The Mennonites are nothing if not economical. They would have to be placed in a desolate land indeed where they could not get a living. Set a Mennonite family down on a sage brush desert and they would contrive some way to keep the wolf from the door, and thrive at that. They think it is because the good Lord is with them, but it is probable that it is because a stingy economy has quickened their instincts in the direction of making something out of next to nothing. The *American Agriculturist* says: The Mennonite immigrant, when choosing a locality, is quite unconcerned at the total absence of timber, and will settle many miles from any wood or coal, with indifference as to the fuel question, in localities where an American would never think of making a farm. He sees fuel for a year in miles of grass about him; the second and succeeding years he will have the straw from his crops, and straw stacks are his favorite substitutes for the wood pile and coal bin. We first saw straw in use for fuel in the house of a Mennonite bishop, in the colony of McPherson county, Can. Dinner for four of us was prepared. A vigorous young Mennonite girl vanished with a bushel basket, and returned with it full of straw, then, placing her kettles, etc., on the top of the cooking range, opened the fire door and thrust in two large handfuls of straw, touched the match, closed the door, and the kettle commenced to sing immediately; in about two minutes the door opened, and two more handfuls of straw were thrust in and the door closed. Our dinner consisted of ham, eggs, potatoes, Russian waffles, and excellent coffee, all cooked in less time than an ordinary stove could have been made "hot for biscuits." The fire was "dead out" before the dinner was half consumed, and the house none the warmer for the fire, the surplus heat all escaping through the broad chimney.—*Northwestern Lumberman.*

Tapping a Natural Reservoir.

The Virginia City, Nevada, *Enterprise* says that the tunnel to tap Eagle Lake is being advanced at the rate of 35 feet per week. It will be about a mile and a half long, and it is expected that it will be completed next fall. It will furnish water power for running several saw mills, and finally will irrigate a great area of now barren sage-brush land in Honey lake valley. The tapping of this lake is an experiment that is being watched with great interest everywhere on the coast. Should it prove as successful as is anticipated, it will be followed by a similar tapping of other lakes on both sides of the Sierras, for mining, lumbering and other purposes.

"The Handsomest Set He Ever Saw."

A lumbering firm for whom this office has just completed a large order for a set of office account books, writes:—"The books came to hand all right and are highly satisfactory. In finish they are the handsomest set I ever saw, the rivets in the Russia bands being, in my opinion, much better than the lacing."

THE experience of one logging operator on the Little Suamico, in Wisconsin, where there has been little snow, was that he got in during the winter 5,000.000 feet of logs, mostly drawn on bare ground, and will put in 2,000,000 feet on trucks, which will give him a two-thirds stock.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

SAVE YOUR HARDWOOD.

The *Northwestern Lumberman* says there is still other timber now looked upon as of little consequence, if, indeed, not as a positive nuisance, of which time will develop a great value. The black birch grows in many of the northernmost regions in great profusion, and ere many years will be as great a favorite as a furniture wood as is cherry or black-walnut today. The opening of railroads through Mexico bids fair for a few years to revive in public favor the use of mahogany, but as a cheap furniture timber the birch will ere many years successfully compete with it. It should be the duty of all public educators to impress upon the minds of the people that but few varieties of timber, even among those now but little esteemed, but will in a few years possess a market value fully compensating the care and labor of wisely preventing their destruction, and while much small timber must necessarily be destroyed in clearing up farms in wilderness sections, it will prove immensely profitable to save all the timber of reasonable size, in full assurance that before many years it will be in demand at a value greater than that of the soil on which it stands.

A Good Selection.

The Chicago *Times* says:—"It is wise and well to plant forest trees in sections of country where they do not grow naturally, but discretion should be observed in selecting varieties and appropriating land for their cultivation. If possible, trees should be selected for planting that will serve at least two useful purposes. In addition to furnishing shade, they should supply valuable timber, good fuel or edible nuts. It is often practicable to plant varieties of trees that will serve all these purposes. Ordinarily, the safest trees to plant are those that are indigenous to the vicinity. They furnish evidence of their adaptability to the soil and climate, and a supply of them can ordinarily be obtained at a small cost. Trees that nurserymen have brought into fashion and praised in horticultural conventions are not always the most desirable ones to plant."

Breaking Rollways.

Dan Crowley, of Phillips, Wis., has introduced a new method of breaking rollways in that region, and accomplishes the end by the use of dynamite or giant powder, and has found the plan to work successfully. He succeeded, by the aid of an expert in the use of explosives, in throwing the logs out of the most difficult places, just where they are wanted, and without injuring the timber in the least. There is also a saving in time and expense. This method has been adopted in Michigan for some time, with more or less success.

Reaching for Northern Lumber.

The *Northwestern Lumberman* says that the Red River & Lake of the Woods Railroad Company has been incorporated for the purpose of building a line from Red River, near Grand Forks, Minn., past Red Lake River, to the mouth of Thief River, then up that river to Lake of the Woods. The route extends 150 miles, and lies through unsettled country. It would tap an extended lumber district in northern Minnesota and about the Lake of the Woods.

CAN'T GET IT.—Diabetes, Bright's Disease, Kidney, Urinary or Liver Complaints cannot be contracted by you or your family if Hop Bitters are used, and if you already have any of these diseases Hop Bitters is the only medicine that will positively cure you. Don't forget this, and don't get some puffed up stuff that will only harm you.

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MACK'S MAGNETIC MEDICINE is a positive remedy for nervous exhaustion and all weakness of the generative organs in both sexes. See advertisement in another column.

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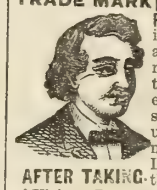
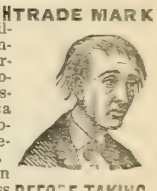
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LUMBERMAN

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. MAY 15, 1882.

MR. E. B. EDDY expects to cut 67,000,000 feet of lumber this season.

ON May 13th Queen Victoria will visit Epping Forest, and with elaborate ceremonies "dedicate it to the use of the people forever."

WM. NEWLANDS, JR., has recently completed plans for a dozen houses in Winnipeg, and is now engaged upon a number more. The residences are built at Deseronto and taken west.

IT is very common now for enlightened farmers in the west and northwest to plant dense rows of trees and hedges of evergreen along the northern line of their orchards and grounds.

THE steamer *Hiram Easton* and four barges laden with lumber from Perley & Pattee's docks were lying in the canal basin at Ottawa, on May 6th, awaiting Government permits to proceed to Kingston.

MESSRS. R. & G. STRICKLAND'S three drives of square timber and logs on the Black River have reached Longford. The timber will be shipped to Port Hope by the Northern and Midland Railways.

A RAFT of five drams of square timber belonging to Mr. Murphy, of Quebec, was warped out of the head of the emigrant wharf at Hamilton, on May 4th, to await the tug *McArthur*, which will tow the raft to Quebec.

THE "heathen Chinee" is trying to turn the tables on his employers in California. A large number of Celestials have formed a company, bought 2,900 acres of good timber land, and are starting a large lumber manufacturing business, hiring the Americans to superintend matters.

THE new tug, building at the yard of Rand & Burger, at Manitowoc, will be named the *George Pankratz*, after one of her owners. She is be be supplied with the machinery formerly in the tug *Margaret*, is intended to tow scows loaded with logs from Sturgeon Bay and Green Bay ports to the owners' mills at Manitowoc.

MAKING maple sugar is a "live industry" in the Eastern Townships. The season, which is about closed, has been a moderately good one for the running of sap. One "sugar-bush" proprietor at Abbotsford, got 2,150 pounds of sugar out of the product of his maple trees.

THE *Monetary Times* says that the Montreal lumber trade with South America will, it is expected, be more than usually active this season. Already close upon a dozen vessels have been chartered to carry deals to the River Plate at prices ranging from $14 to $15.50 per thousand.

THE maple sugar crop, throughout the Province of Quebec, has fallen considerably short of the average yield. The general lightness of the snow fall, together with lack of sunny days, is supposed to account for the shortage. Besides, last season was marked by an unusual run of sap, and two such seasons rarely follow each other.

THE *Northwestern Lumberman* says:—Owing to the scarcity of men near Montreal, lumber operators are offering from $35 to $40 a month for hands on the drive. On a recent Saturday 700 French Canadians arrived at Montreal from Michigan, where they had been working in the woods, for the purpose of going on the drives. In Michigan they received $30 a month, and when the operators threatened to cut down their wages, the Kanucks sighed again for the baked beans of the Wolverine pineries.

THE new manager of the Muskoka Boom Company, Mr. G. W. Taylor, has regulated matters so that passengers, mails and freight can be delivered at Bracebridge promptly, and so that farmers and others from points on the lakes can arrive and depart from Bracebridge the same day, and have five hours in the village in which to transact business. The difficulties of former log driving seasons have, it is hoped, been pretty well obviated by an arrangement mutually come to by the navigation and lumber interests.

AT the Simcoe Assizes held at Barrie this week, a case was tried which is of interest to farmers. The case was that of Bruce vs. Burns. The defendant in this action set a fire to burn some brush on his farm last summer during the very hot weather, the result being that the fire spread to the house of the plaintiff, who lost everything. Witnesses were called who testified that before setting the fire the defendant had said that it would serve the plaintiff right if he got burned out. The defendant not putting in an appearance, the jury gave a verdict for the plaintiff for $1,200.

PROVINCE OF QUEBEC.

The Montreal *Post*, in commenting on the annual report of the Commissioner of Crown Lands for the Province of Quebec, writes as follows:—

Perhaps the most interesting of all is that relating to woods and forests. The total amount received for sales of Crown timber limits is $543,518.76. A large sum truly, and which is the chief source of revenue of the department. It is worthy of remark that up to last year the average revenue received from this source was less than $390,000. The following extract from the report is explanatory of the increase, but the Commissioner is too modest to state that the great increase may be chiefly credited to himself, one of the most able and hard-working men in broad Canada:—

"The main cause of increase in revenue is due, not only to the present prosperous state of the Province, but also to the more strict attention on the part of the department, and the adoption of more efficacious measures for the protection of our woods and forests, and the collection of the revenues derived therefrom, as well as those arising from the sale of lands. Competent bushrangers have been appointed in every part of the Province where they were most needed; and I am happy to state that their services have been very useful from all points of view."

It is to be regretted that the preservation of timber lands is not kept more distinctly in view. When they shall have disappeared we will all cry out and ask where they are gone, but now is the time to take action. They are always, when properly managed, a large source of revenue, but rich limits such as ours should, as the years roll on, be made to yield vast returns. The Hon. Mr. Flynn throws out valuable suggestions in this respect, which we hope will have effect.

THE NORTHWEST MARKET.

The lumber manufacturers of Minnesota and a portion of Wisconsin may, this season, call themselves in high luck. They will enjoy opportunities for a profitable disposal of the products of their mills that they have never enjoyed before, and may never again. High prices as the Michigan mill men are getting, they have reason to envy their Minnesota and Wisconsin brethren. The latter have struck a veritable bonanza. If they do not make more money this summer and the coming fall than they have ever made before in the same length of time, it is because providence will, in some way, sit down on them. In years to come the grandchildren of these men will relate the present year's business experience of their ancestors, and stamp it as phenomenal. They will be justified in so stamping it. It will rank as phenomenal in the history of the lumber trade.

In the great Northwest that is now settling up there is a sharper and larger demand for lumber than was probably ever known before. On an average, 1,200 immigrants reach Winnipeg daily, who go on beyond that point to settle farms and build homes. How to supply this great and growing territory with lumber fast enough is the question. These emigrants are not experts. They hardly know a cull from a finishing board; and fortunately they have money to pay their way. Under such circumstances they are willing to pay a good round price for enough boards to shelter them from the weather. The manufacturers referred to above stand in a position to supply this lumber, and they would be less than human if they did so at prices smaller than they can get simply by the asking. Lumber is shipped from Minneapolis, and called common, that would be placed with culls if it went to down-river markets. The same is true of lumber that is shipped from St. Paul and Duluth.

Quite a portion of the lumber that has reached Winnipeg of late has been forwarded to Portage la Prairie and Brandon. It is claimed that in these two towns there are building contracts amounting to $6,000,000. It is claimed also that in Winnipeg building operations are upon the tapis that will cost as much more. The heads of the inhabitants of this new country are high in the air just now, and it would be safe to cut down the figures somewhat; but after making a liberal reduction, it is plain that it will take an immense amount of lumber to carry out the plans.

How long this big boom will last is past telling. There is not the slightest probability that it will decline this season. In fact the rush gives promise of becoming greater than it is now. Every mile that the Canadian Pacific road is pushed lessens the chances of the American lumberman. Upon the completion of this road the Canadians will have a finger in the pie. They are aching to do it, and look with green eyes on the board cutters across the line, who are reaping such a reward for their labor, and are pretty sure to reap it for some time to come. The American lumbermen in the territory tributary to Manitoba are not a bit anxious for the completion of the road. One of them remarked the other day, "I wish the blamed enterprise would collapse."—*Northwestern Lumberman.*

FOREST CULTURE.

The national forestry convention which met in Cincinnati last week was the commencement of a general movement toward the reproduction of the woodland growth which is so rapidly disappearing from this continent. While in France, England, Germany and other European countries one of the principal bureaus of the Government is that having charge of the forests and rivers, the whole matter is neglected by us except as it relates to the lumber trade. In those countries the annual reports of the forestry bureaus are looked forward to as having an important bearing not only upon the sanitary condition and agricultural resources of the country, but upon the revenue as well.

The combined effect of accidental fires, clearings, and the wasteful consumption of forests in the production of lumber, railroad ties, tanbark, fuel and for other purposes, with a total neglect of the means of reproduction, have depleted the forests to a greater extent than is generally recognized. The late convention was suggested by the United States census statistics, which show that, should the destruction of the forests of the United States go on for the next quarter of a century at the same rate as during the last ten years, trees of a spontaneous growth will begin to disappear. To guard against this calamity by devising plans of forest culture, suggesting necessary protective legislation and bringing the matter to the forcible realization of the people, was the general purpose of the convention. During the three days of its sessions papers were read by persons who have made forest culture a study upon the economic, æsthetic, scientific and hygienic aspects of tree-planting.

Ohio is going right at this important work in a practical way. "Arbor Day" is to be established, and a day on which all over the state everyhody will plant trees by the roadside, in the public parks and private property. Roadside planting associations are to be organized in all parts of the State, their purpose being to promote the planting of trees along the highways and in groves where suitable sites may be secured. The "arbor day" festival promises to become a feature of the Buckeye state which cannot be too soon adopted by every State in the Union and every Province in the Dominion. —*Ottawa Free Press.*

THE AMERICAN FORESTRY CONGRESS.

The National Forestry Congress held its first meeting in Cincinnati on the 25th of April, and continued in session five days, during which a a large number of interesting papers were read and discussed. Canada was represented by four delegates, who were very cordially received, and invited to take part in the deliberations.

In order that Canadians might be induced to participate more freely in the doings of this Congress, it was resolved that the name be changed to the American Forestry Congress, and that the next meeting be held in Montreal on the 21st and 22nd days of August next. Governor Foster, of Ohio, the Hon. G. B. Loring, Commissioner of Agriculture, Washington, ex-Governors Anderson and Cox, the Hon. Cassius M. Clay and other distinguished gentlemen attended the Congress and took an active part in the deliberations. The Hon. Geo. B. Loring was elected President for the ensuing year and among the Vice-Presidents chosen were Prof. Wm. Saunders, of London, for Ontario and the North-West, and Mr. James Little, of Montreal, for Quebec and the Maritime provinces. The Hon. Commissioner Loring on taking the chair stated that forestry was one of the most important questions in the United States at present, and the Government was in hearty sympathy with the movement. After referring to the example of forest culture set by England and some of the other European nations, the "æsthetics" of tree planting were gone into, one of his points being that trees should not be set in regular order like belles and beaux standing waiting for a quadrille; he also stated that it was easier and better to make a park by planting new trees than by taking up superfluous old ones. The effect of trees upon the powers of association and emotions of man were well described, and the heroic and historic stories connected with trees were told in a most interesting style. He also showed that the cultivation of trees had now become a most profitable branch of agriculture.

Among the papers read and discussed before this congress were the following written by Canadian authors: "The Pine Woods of Canada," by James Little, of Montreal; "Distribution of Canadian Trees," by A. T. Drummond, of Montreal; "Why Should We Plant Trees?" by Dr. A. Eby, of Sebringville, Ont.; "Forest Insects," by Prof. Wm. Saunders, of London. The four following papers were prepared by Prof. Wm. Brown, of Guelph:—"Forests and Rainfall in Ontario," "Lessons from Australia and Scotland," "Suggestions

Respecting a Text Book on Forestry," and "Suggestions Regarding Government Assistance."

On one of the days during the congress at Cincinnati trees were planted to the memory of the illustrious soldiers, statesmen, and other prominent individuals, deceased and living; and among one of the pleasantest features of the time was the setting aside of a portion of Eden Park to be called "the Queen's Grove," and also the planting of two oaks by a number of ladies in honor of Her Majesty the Queen and H. R. H. the Princess Louise.

A PREHENSILE TREE.

So many curiosities of plant life have of late years been brought into public notice that the report of the existence of a tree which picks up stones, bones, bits of wood, and other unconsidered trifles from the surface of the ground, retaining them, and suspending them in mid-air, says *Colonies and India*, hardly excites the incredulity now-a-days with which such a statement would have been received a generation ago. Thirty years ago stories of plants whose flowers were furnished with the means of enclosing flies, or even pieces of meat, as a spider seizes on its prey, and quickly surrounds it with a network of gauze and which then actually proceeded to eat the prey thus secured almost as a spider would eat a fly—such stories, thirty years ago, would have been relegated to the category of "travellers' tales." But we have the authority of Mr. Darwin, and anyone may easily have the evidence of his own eyes, to prove that the possession of such properties by certain flowers is no fiction, but an undoubted fact. The same authority, who first brought prominently into notice the remarkable properties of the *Drosera*, has also shown that other plants have actually the power of progression, within certain limits, from one spot to another.

With such instances it requires little effort to believe the correctness of the report above alluded to, that some plants are endowed with the faculty of picking up loose articles from the ground. Lieutenant Houghton, who recently visited New Guinea and several other islands and groups of islands in the Pacific, was the first, we believe, to report the existence of such a tree, though he did not explain the means by which it accomplished this unusual feat. It appears to be a species of Ficus, allied to the well known banyan tree, which throws out from its branches air roots that eventually reach the ground, take root there, and in their turn become new stems which perform the same function, so that a single tree eventually extends so far in all directions as to form a complete forest, in which all the stems are united by the branches to each other. The prehensile tree in question similarly throws out from its branches long flexible tendrils, which, touching the ground, do not take root there, but twine themselves around any article that may lie within reach. Eventually these quasi-branches contract so that they fail to reach the ground; but the finger like processes continue to closely grip the substance round which they have twined themselves, and which are consequently suspended in mid-air. In this way articles of considerable weight may be literally picked up from the ground by the tree, and so held in suspension.

MISSISSIPPI LOG CUT.

The Minneapolis *Tribune* gives an estimate of the logs cut in the Mississippi district above Minneapolis and to be sawed at that point. The logs cut have not yet come down to any great extent, hence the cut can only be estimated. Major Camp, who has been over the ground thoroughly, however, estimates the entire crop at 337,000,000 feet in round numbers.

This cut is considered an average one and sufficient for the needs of manufacturers. Two-thirds of the streams in the upper Mississippi country have had plenty of snow; the hauling has been good, and the cut fully up to the average. The winter weather in the latter part of March did much towards preserving an average in the cut along the lower streams, and on the whole the cut has been fully up to what could have been reasonably expected. In spite of this, however, the prospects for lumber manufacturers are not considered particularly rosy. Though the price of lumber is $2 per M. more than it was last year, the price of logs has increased still more, while labour and other items of expense are much higher. The men who will make the most money are the loggers who sell their cuts. Of the total cut, all except 90,000,000 feet will be manufactured in Minneapolis.

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LOG TRANSPORTATION.

In another column will be found an article on the future supply of logs for the Saginaw river mills. The following from the Green Bay *Advocate* may prove the solution of the practicability of transferring logs from Georgian Bay to the Saginaw river: "One of the greatest improvements made of late years in the lumbering business is in the facility and safety of handling logs. It is not many years ago when it was considered a very risky thing to carry logs a few miles on the bay. It was always done by towing, and numerous rafts were broken up and the logs scattered all along the beach. Improvements were finally made in rafting, securing greater safety; and then followed the building of scows to carry the logs. The latter seems to be the best and safest plan, and the scow mode of transportation, or rather the mode of getting the logs on and off the scows, is being improved upon. Wm. Baptist & Son, of this city, have probably as good an arrangement of this kind as can be built.

Now the Two Rivers Wooden Ware Manufacturing Company have adopted Mr. Baptist's plan and are carrying it into effect. They are building a powerful tug at Wolf & Davidson's yard, Milwaukee, and a scow to carry 150,000 feet of pine. The scow is being built in the best and strongest manner and hoisting apparatus similar to Mr. Baptist's put in. The outfit will be complete. The design is to carry logs from different points on the Green Bay and Lake Michigan shore to the factory at Two Rivers. They are now ready to handle logs at any point where they can be landed on the beach or in the water, and are making contracts all along the Green Bay shore for pine, maple, beech, oak and birch logs.

The advantages of this plan will be readily seen. The scow can run close in shore and take small lots of logs that are too distant from the landings of the mills to be hauled by train and points where rafting would be difficult, if there were logs enough to warrant it. It will enable persons clearing up their land to utilize their logs and make a profit on them, while otherwise they would have to roll them in heaps and burn them to get rid of them; so that the arrangement is a mutual benefit to the owners of the mills and the soil.

Our informant, who is a member of the Two Rivers Company, informs us that they lost fortunes years ago in not having an arrangement similar to this for getting their logs. We call the attention of mill men to this item.—*Lumberman's Gazette.*

GEORGIAN BAY LOGS.

The *Lumberman's Gazette*, of Bay City, Mich., in an article on the rapid exhaustion of their pine timber, and the sources of their future supply of saw logs, writes as follows:—

Present indications point to the fact that this supply will ultimately be obtained from the Georgian Bay country; and when we understand that some of our far-seeing, best informed and practical men are investing in the timber lands of the country, we are strengthened in the belief that the plan is feasible, and that these investments made by Bay City and Saginaw operators are based solely on the object and with the purposes indicated above.

We are also strengthened in our belief in the feasibility of the plan of supplying the Saginaw river mills with the logs, from a conversation a few days since with E. H. Hazelton, of Philadelphia, a gentleman of extended information, and wide experience in the lumber business, who favored us with a friendly call. Mr. H. was formerly interested with the Flint & Pere Marquette railroad, and more recently with W. S. Gerrish, in the Gerrish logging railroad, and the extensive Clare county lumbering operations. His health becoming impaired by a too close application to business, about three years ago he removed to Colorado with the purpose of recruiting his exhausted energies. Receiving the hoped for beneficial results, he made a visit to the Georgian Bay country in order to obtain information from a personal examination and observation in regard to the quality and extent of the timber resources of that country. So well satisfied did he become that he made immediate purchases on French river, in Muskoka, and returned home. He is now on the route to revisit the section of country where he made his investment, with a view of a more thorough examination, more extended information, and further outlay of capital. He is most favorably impressed with the timber resources of that section and informed us that on the French river in Muskoka district there is a belt of timber 100 miles wide by 300 miles long, and that other Saginaw river men have already invested in the timber adjacent to that and other streams in what is understood as the Georgian Bay country.

But the next question for consideration, after it has been satisfactorily demonstrated that there is an abundance of timber which is obtainable in that country, is the feasibility of the proposition to transport it to the Saginaw river and make it available in sufficient quantity to supply the capacious maw of about one hundred of the most extensive lumber and shingle manufactories which are grouped together on the continent. This, of course, could only be accomplished by water transportation and the adoption of some method by which they can be towed or transported in large bodies. It has been very effectually demonstrated that the towing of large timber rafts long distances is within the range of possibility, the only question being the ability to sufficiently secure them against the storms by which they are liable to be overtaken on the route. That the genius of the age, combined with the practical ability and sound judgment engaged in the lumber industry will devise some method by which such a desirable result shall become an accomplished fact, is within the scope of the conception of any person particularly interested, and that the transportation of logs from the Georgian Bay to the Saginaw can be accomplished under such conditions as shall return a reasonable remuneration, we believe to be within the range of practical demonstration, and we are sustained in this conclusion by men who have had unlimited experience and abundant opportunities to satisfy themselves in this respect, and by the further and conclusive fact that some of our shrewdest operators are taking advantage of the opportunities offered them in the territory under consideration.

The shores of Georgian Bay, into which many of the streams running into the heart of the pine timber territory empty, is lined with islands which afford ample shelter for rafting operations, and there are many other advantageous surroundings, all of which sustain the feasibility of the proposal to supply the extensive lumber manufactories on the Saginaw river with stock from the Georgian Bay territory, after that of the lower peninsula of Michigan shall have become completely exhausted.

DECAY OF SPRUCE TIMBER.

The following letter appears in the Montreal *Witness*:—

SIR,—I wish to bring the subject of the fearful destruction going on in our forests amongst the spruce timber before the people, to see if there are any person or persons who are able to give the cause of this wholesale dying out of the spruce in our forests, for I cannot. I also wish to bring the subject before the minds of the owners of timber lands so that there may be means provided to save as much as possible out of the timber before it is entirely spoiled, which will take only a few years to render it worthless. For the information of such parties I will give my experience in those localities where I have been, and before going further, I will say I should be very glad to hear from others, through the papers or otherwise, of the state of the spruce timber in other sections away from those of which I shall speak. In the course of the last three or four years I have travelled more or less throughout the townships of Dudswell, Stoke, Windsor and St. Camille, and feel safe in saying that one-half of the spruce timber in these townships is entirely dead, and a great number of those trees that are not dead are in the first stages of decay, noticeable by the lower boughs becoming dry. Now the most of this timber to-day is sound and might be saved if the owners would sell it, and by so doing realize out of the stumpage. The price this lumber is bringing in the market is such that I am sure there are plenty of parties who would invest sufficient capital to get it to market, provided they could get it from the owners of the lands. To show how little some men know about timber I will relate a talk I had with an agent of the British American Land Company. I said to him, "Why do not the company sell the spruce timber on their lands before it is entirely spoiled?" His answer was, "Oh, there is plenty more growing," which shows how little he knew about spruce timber in our forests. The small trees to which he referred that grow up amongst the large timber on the ridges where the most of the spruce timber is found are good for nothing, and never will be of any value. The most of them are a scrubby second growth, and not one to ten of them but are rotten at the bottom, and they are also dying. It is very singular what causes the trees to die, some say one thing and some another, but none of the causes given seem reasonable to me. The trees seem to become dead from top to bottom all at once. I have myself this last winter, on my own land, cut trees that two years ago were to all appearance perfectly green and thrifty, and when cut there was not a vestige of anything green about them, but they were perfectly sound. There are millions of feet of spruce timber standing upon the British American Land Company's land in the townships before mentioned, in the very same state. The company, I believe, refuse to sell the timber off their lands, but prefer to sell their land and give the buyer the benefit of the timber. This is only right, but the timber being in such a state of decay I think the company would be acting wisely to sell it rather than let it stand and spoil and never do anyone any good, as will certainly be the case if it is not cut very soon. The same is applicable to all owners of timber lands as well as the British American Land Company in the localities of which I speak. How it may be in other places I do not know, but would be glad to learn, for it is going to be a greater damage to the country than many expect. I hope that those for whom this information is intended will take the trouble to enquire into the matter and act accordingly.

FAIRMAN HALL.

Dudswell Centre, April 3, 1882.

FORESTRY CONGRESS.

CINCINNATI, April 25.—The Forestry Congress met at the Music Hall this morning. A large number of men who have given the subject of Forestry attention were present. Governor Foster is here. Ex-President Hayes will be here. There was no business of importance in the forenoon, and no speeches.

Hon. E. F. Noyes was chosen temporary chairman; Alfred Springer, of Cincinnati, Secretary. The following committee was appointed to frame a constitution and by-laws:—Prof. Hough, of Washington, D.C.; Dr. John Warder, of Ohio; G. B. Loring, of Washington, D. C.; Rev. John M. Walden, of Cincinnati; General C. C. Andrews, of St. Paul, Minn.; Prof. Wm. Saunders, of London, Ont.; John H. McMakin, of Cincinnati; General Durbin Ward, of Lebanon, Ohio.

Among the persons present are Hon. Casius M. Clay, of Kentucky; ex-Gov. Charles Anderson, ex-Gov. J. D. Cox, Hon. James Little, of Montreal; N. H. Eggleston, of Williamstown, Mass.; G. B. Bruckett, of Iowa; E. M. Calkins, of Iowa; Prof. Spalding, of Ann Arbor, Mich., Chas. J. L. Meyer, of Fond du Lac, Wis., Joseph W. Starr, of Nebraska; Prof. F. L. Harvey, of the Arkansas Industrial University.

The committee reported a constitution, which was adopted. It provides that the name shall be the American Forestry Congress, the object to encourage the protection and planting of forest and ornamental trees, and to promote forest culture. An initiation fee of $2 shall be required, and the annual dues shall be $1. Besides the usual officers of President, Vice-Presidents, Secretaries and Treasurer, it is provided there shall be executive committees for each district, a committee on annual meeting, and local committees, all elected annually. After this year the Presidents of State, Territorial and Provincial Associations shall be Vice-Presidents of this Congress. The United States and Canada are divided into eleven districts, according to climate and vegetation. George B. Loring, of Washington, D.C., Commissioner of Agriculture, was elected President. Each State is represented by a Vice-President. W. G. Beal, for Michigan.

President Loring, on taking the chair, delivered a well prepared address.

Sections were then formed on the uses of forests, conservation of forests, influence of forests and educational means. Chairmen for each were appointed to examine the papers offered.

THE *Timber Trades Journal* says the long spell of easterly wind has told its tale on the spring fleet, which are now coming forward to the outports as well as to London in unusually large numbers. Pit-props are arriving rapidly at the north-east ports. Of the sixty cargoes received this season at West Hartlepool, the majority are wood of this description. At Sunderland the arrivals of mining timber have been exceptionally heavy.

THE *Timber Trades Journal* says the arriva of 102 timber laden vessels at London during the week ending the 12th of April is rather a startling importation so early in the year; of these only 14 were steamers. Last year at the same period 33 vessels all told were regarded as a pretty fair supply, but vessels were only then just getting out from the southern Swedish and Norwegian ports. But now apparently the shipping trade is well on for the season.

THE *Canadian Manufacturer* says:—"In connection with the rapid settlement of Manitoba and the North-west, the construction of house timber, in parts, ready to be put together, is becoming a business at points in the old provinces. A great deal of the timber used in the North-west is carried there from points in Ontario, and even from as far east as the province of Quebec; and, while the work can be done cheaper here, the cost of transportation is no more. It is therefore likely that there will be a considerable development of this new industry."

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on March 31st, 1881 and 1882, and also the Consumption for the month of March, 1881 and 1882:—

	Stock, March 31st. 1882.	*Stock, March 31st 1881.*	*Consumption for the month of March 1882.*	*Consumption for the month of March, 1881.*
Quebec Square Pine	119,000 ft.	725,000 ft.	80,000 ft.	83,000 ft.
" Waney Board	219,000 "	238,000 "		
St. John Pine	10,000 "	16,000 "	6,500 "	4,000 "
Other Ports Pine	29,000 "	56,000 "	4,000 "	—
Pitch Pine, hewn	635,000 "	489,000 "	201,000 "	198,000 "
" sawn	440,000 "	411,000 "	189,000 "	126,000 "
" planks	60,000 "	136,000 "	60,000 "	20,000 "
Red Pine	27,000 "	48,000 "	—	5,000 "
Dantzig, &c., Fir	24,000 "	144,000 "	4,000 "	47,000 "
Sweden and Norway Fir	8,000 "	9,000 "	2,000 "	—
Oak, Canadian	264,000 "	444,000 "	30,000 "	32,000 "
" Planks	53,000 "	114,000 "	37,000 "	15,000 "
" Baltic	60,000 "	49,000 "	—	—
Elm	45,000 "	37,000 "	5,000 "	4,000 "
Ash	14,000 "	7,000 "	1,000 "	2,000 "
Birch	81,000 "	140,000 "	37,000 "	67,000 "
Greenheart	21,000 "	47,000 "	16,000 "	5,000 "
East India Teak	96,000 "	14,000 "	27,000 "	1,000 "
Quebec Pine Deals	5,848 stds.	9,151 stds.	729 stds.	937 stds.
" Spruce "				
N. B. & N. S. Spruce Deals	10,464 "	22,895 "	3,659 "	3,541 "
" Pine "	400 "	1,450 "		
Baltic Deals	2,388 "	6,159 "	442 "	500 "
Boards	60 "	502 "	30 "	80 "
" Flooring Boards	2,048 "	2,043 "	804 "	318 "

Chips.

It has been resolved by the Harbour Board at Cork, Ireland, to plant a number of trees, 30 feet apart, on the Marina.

Lake Winnipeg will send in 12,000,000 feet of lumber this season. The six mills are all working up to their capacity.

The mills of the Eau Claire Lumber Company at Eau Claire, Alma and Meriden, Wis., are slashing up half a million of lumber daily.

Wright & Ketcham, in Midland county, Mich., intend to put a heavy engine on their logging road, sufficient to pull 25 loaded cars.

A Log railroad will have to be built at Gilchrist Creek in Alpena county, in order to get to the river logs that are skidded at that place.

The vestry of Paddington has resolved to lay down 25,415 yards super of wood paving in various streets, at an estimated cost of £12,072.

A Block of creosoted pine, in use in the street pavement at Galveston for seven years, was recently examined and found to have lost but an eighth of an inch.

In central Wisconsin it is feared that many logs on the smaller tributaries to the main streams will be hung up for lack of the usual spring rise of water.

The waters in the streams tributary to the Saginaw river, in Michigan, are falling so rapidly that it is feared a large amount of logs will be hung up unless there is rain.

The arrivals of wooden cask hoops on the Tyne have recently been on an extensive scale. These goods are principally imported from Rotterdam, and are used at the cement works, chemical factories, and other local industries.

I. K. Kerr, of Eau Claire, Wis,, has banked 5,360,000 feet of logs this winter, which was over a quarter of a million more than he anticipated. This is a very unusual case. Mr. Kerr estimates that the cut of logs on the Chippewa will run 90 per cent. of the anticipated quantity.

Quarter-sawed sycamore is beginning to be used to some extent for finishing purposes, and quarter-sawed beech is also coming into favor in the same capacity, these woods somewhat taking the place of oak. Birch is also being employed in house-finishing with satisfactory results.

Mr. J. S. Smith, of Jacksonville, Fla., is making an effort to establish a pulp and paper mill at that point. The intention is to use palmetto wood. A factory such is as contemplated would cost from $75,000 to $80,000. Several Washington capitalists are taking the matter under advisement.

At Albany, N.Y., prices of hardwood have advanced recently, good walnut going up from $10 to $20 per thousand, and most of the other woods being elevated more or less. Sycamore went up $2, whitewood dropped $5, and chestnut and oak advanced. The lower grades of hickory and ash advanced also.

By the terms of the lien law passed by the Wisconsin legislature the present winter, any laborer shall have a lien on logs for work done in connection with the getting them off the land and into the market. A promissory note given to secure the debt will not release the lien unless "it be so nominated."

A Plat of Caldwell township, Missaukee county, Mich., has been made with reference to its standing pine, by which it appears that there is yet 197,000,000 on the stump. If such plats could be made by townships throughout the state, somewhat near an estimate of the standing pine in Michigan could be reached.

A Log jam one and a half miles long has formed eighty miles up the Chippewa at a point known as Gaynor's landing, and the water has declined to such a stage that all efforts to break it were unsuccessful and had to be abandoned. The jam is composed of miscellaneous logs, mostly belonging to the Beef Slough Company.

A novel enterprise will be started in Hamilton shortly. Mr. C. H. Logan, of Newark, N. J., has leased the building on the Great Western railway track east of the city, for the purpose of building houses and exporting them to the North-west. All that is necessary for the construction of wooden houses will be manufactured on the premises. Mr. Logan has had a large experience in Newark, where he is a partner in a large factory of that kind.

The new pulp mills at Riviere du Loup, *en bas*, are now in successful operation. The building stands at the foot of a cliff ninety feet in height, from the brow of which a column of water enclosed in an almost vertical cylinder, six feet in diameter at the top and three feet at the bottom, acts upon a turbine, producing a potential driving force of 850 horse power.

The Eau Claire Lumber Company has established the following schedule of wages for the season, 11 hours being considered a day's work, and extra time being allowed proportionately. Filers, (per diem) $5; head sawyers, $4; gang sawyers, $3.50@$3.75; edgers, $2.50; butting sawyers, $1.75; slab sawyers, $1.61; foreman, rafting, $2.10; rafters, $1.60; common rafters, $1.50; common mill laborers, $1.50.

One of the biggest logging transactions, if not the biggest, that ever occurred in Davenport took place on Tuesday, between H. Brown & Co., of Williamsport, Pa., and Page, Dixon & Co., of this city. The firm of Brown & Co. was represented by its senior member, H. Brown, who has for years been one of the most extensive dealers in logs in the Wisconsin and Michigan regions. The completed negotiations of today embraced no less than 17,000,000 feet of logs, which are in Beef Slough and along the Chippewa river. The true figures are private, but it is understood among lumbermen to lay between $175,000 and $200,000.—*Davenport Democrat.*

A Grenville despatch, dated May 2nd, says some barges and American boats are now at Greece's Point on the way to Ottawa for cargoes of lumber. Navigation is now fully open here. The steamer *Carillon*, with six barges whose cargo consisted of thirteen hundred and thirty-seven thousand feet of sawn lumber, for Burlington, passed down yesterday morning. Some of those barges are quite new, this being their first trip, and are very much larger than the old style of craft, so much so that instead of the ordinary lockage of four vessels at a lockage, only one of those could be passed through at a time. The steamer *Mink* and eight barges also passed down and two rafts have already landed on the south shore at Grant's Point.

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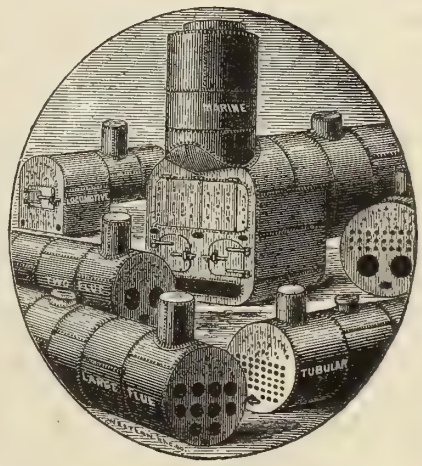

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Market Reports.

TORONTO.

From our own Correspondent.

MAY 8th.—Prices at the yards remain firm at last quotations, and trade is exceedingly flat. I question indeed if retailers have ever experienced a duller month than the one just closed. The carpenters' strike is now over and the men have returned to work, at least such as were able to regain their places, but the masters had the advantage, and refused to take any men but such as suited them, and the result is that the poorest men are left out in the cold, but the inevitable result of all such strikes is now being felt by all who are in any way interested in the building trade.

Shipping at the docks is quite active, and shippers have little to complain of as regards car accommodation. The average weekly shipments for the last two weeks has been about 3,000,000 feet from the N. & N. W. R. Docks, which is quite a respectable showing, but it is extremely doubtful if shipments will continue at this rate for any length of time, as the total cut for the season is largely dependent on June freshets, and the quantity of logs now at the mills is comparatively small, and the balance of last season's cut will soon be all forward.

I hope that in my next letter I may be able to give you a more hopeful statement as regards building operations and the state of the retail trade here.

In my last letter the name of the firm of John Kennedy & Co., of McDonnell Square, was incorrectly given as Kineely.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	16 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00
B. M.	
1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1½ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ℔ M	2 50@3 00
XX sawn shingles	2 75
Sawn Lath	2 50

OTTAWA.

From our own Correspondent.

MAY 8th.—All the saw mills hereabouts are in full operation, a number of them having already commenced running at night. This augurs well for a busy season, which no doubt will be the case, as the demand is very good. Everything at present is favorable to the lumbermen, and providing no unforseen obstacles arise, the cut this season will surpass that for many years past. No complaints are made of scarcity of men. Wages are somewhat higher than last year. In the House of Commons a few nights since a subject was brought up which is of vital importance to the lumbermen of the Ottawa. Mr. Rochester, the member for Carleton county, who is also a saw mill owner, urged upon the Government the nccessity of building

A DAM ACROSS THE OTTAWA

at the foot of Lake Temiscamingue, in order that a reservoir might be made to hold back the spring freshets and utilize the water later on in the season, when it is actually required for navigation. There is no doubt but that the Ottawa River requires some more improvements in order that the lumber trade may have more than the present conveniences; and the Government's complying with Mr. Rochester's request would be a big step in this direction. The lumbermen at present are compelled to, and have for years, built dams on smaller lakes to regulate navigation, but it is found almost impossible to erect dams of sufficient strength to withstand

THE SPRING FRESHETS.

The high water lasts only about ten days and then it begins to recede. In some years in the month of July the water is so low that it is very hard to get the timber and logs down the river, and it is equally difficult for vessels on the Ottawa carrying lumber to find water enough for navigation. If a dam was built at where Mr. Rochester suggested, in order to keep back a certain amount of the spring freshet, there would be navigation during the months of low water. To show the necessity for further

IMPROVEMENTS ON THE OTTAWA,

it might be said that of the logs and timber taken out by the various firms last year not more than one-half was navigated to the mills, and this is a serious loss. The usual cut is about 3,000,000 feet of lumber, but last year it reached to only 1,500,000, or 2,000,000 at the outside. Mr. Rochester clearly proved that the building of this dam would not, as some supposed, interfere with the land surrounding the lake. A dam at the point indicated would enable the mills here to run straight along through the summer, which they cannot at present do, and it would, as said before,

GREATLY AID NAVIGATION.

It was shown that the average load of a barge in July was 275,000 feet board measure, while from the middle of July to the middle of September it is 107,000, or a difference of 168,000 feet. The expense of taking that barge from this city to Montreal fully loaded would be just as much as taking it with a half load. At low water it costs $2 more to drive logs than it costs in June. Notwithstanding that the dam at the foot of Lake Temiscamingue would be of great benefit, Mr. Currier, M.P., and also a large lumberman, took some

OBJECTION TO THE SCHEME.

He held that a dam at the foot of the Lake would completely ruin the farming lands around it, and he said it would also submerge the Hudson Bay station. He suggested that a dam be constructed at the foot of Seven League Lake, about thirty miles below Temiscamingue. This would extend the navigation upon that Lake down to a point within thirty miles of the Mattawa, on the line of the C. P. Railway. It is to be hoped that the Minister of Public Works will push this matter through at as early a date as possible, and by so doing he would be conferring an everlasting benefit on the great lumbering interest of the Ottawa.

MONTREAL.

From our own Correspondent.

MAY 9th.—Local trade has been good, and there has been an active demand for building lumber at full prices, but with the large receipts coming in now and expected during the season, it is more than likely that the present high prices will hardly be maintained, but as yet there is no appearance of them giving way, as last year's stock of seasoned lumber here is small. We have no change to make in our price list, and continue to quote as follows :—

Pine, 1st quality, ℔ M	$35 00@40 00
Pine, 2nd " ℔ M	22 00@24 00
Pine, shipping culls, ℔ M	14 00@15 00
Pine, cull deals, ℔ M	8 00@12 00
Pine, mill culls, ℔ M	8 00@10 00
Spruce, ℔ M	10 00@11 00
Hemlock, ℔ M	9 00@11 00
Ash, run of long culls out, ℔ M	16 00@18 00
Bass, " ℔ M	16 00@17 00
Oak, ℔ M	35 00@45 00
Birch, ℔ M	17 00@20 00
Hard Maple, ℔ M	18 00@25 00
Lath, ℔ M	1 50@ 0 00
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 00@ 0 00

SHIPPING.

Nothing has been done yet in the way of shipping lumber, no vessels having yet arrived in port, but shippers are receiving stock both from below and by the canal from Ottawa, so that as soon as ships arrive, loading will be active for a time.

FREIGHTS.

There has not been much transpiring in the way of chartering vessels for South America, some engagements, however, have been made at $14@$15.50. By the date of our next report business ought to have made a fair start, as it is, we are yet between the seasons, when very little can be said about business.

CORDWOOD.

Some boats with cordwood have arrived both from below and by the Lachine canal. Wood is scarce in the country, and prices are likely to rule high, as people are asking about $1 a cord more than they did last year. Demand is improving here, and railway prices are still asked on the wharfs, which we now quote, ex cartage :

Long Maple	$6 50
Short "	6 00
Long Birch	6 00
Short "	5 50
Long Beech	5 50
Short "	5 00
Long Tamarack	5 00
Short "	4 50

LONDON, ONT.

From our own Correspondent.

MAY 10th.—The lumber business here since my last letter has not shown any movement towards activity, on the contrary, it is remarkably quiet for this season of the year. Little building in going on, and the season continues very backward. The only important operations going on is the laying of the cedar block pavement on Richmond street, from Dundas street to the G. W. R. station. The contractor for this job is Mr. Wm. Cuthro, of this city. He is obtaining the posts from Wingham, where he has purchased one hundred acres of cedar. The posts are all peeled and the blocks cut in Wingham, previous to shipment down here. It is estimated that the covering with blocks of the portion of Richmond street now contracted for will take about 12,000 posts.

Prices of lumber remain firm at my last quotations, which are as follows :—

QUOTATIONS.

Mill cull boards and scantling	$12 00
Shipping cull boards, promiscuous widths	13 00
" " 10 and 12 in. stocks	13 50
Common boards, promiscuous widths	15 00
Scantling and joist, up to 16 ft	16 00
" " " 18 ft	16 50
" " " 20 ft	17 50
" " " 22 ft	18 50
" " " 24 ft	20 00
Common stocks	16 00
Common 2 in. plank	15 00
Cutting up plank and boards	20 00
Sound dressing stocks	19 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	22 00
¼ " " " "	22 00
1 " " " "	22 00
XXX sawn shingles, ℔ M	3 25
Lath per 1000 feet	5 00

ST. JOHN, N. B.

From our own Correspondent.

MAY 6th.—The weather continues cold and backward for this season of the year. The river became sufficiently clear of ice for the resumption of navigation only in the present week, the first steamer reaching Fredericton on Tuesday, the 2nd May; last year the same trip was accomplished on the 11th of April; that, however, was exceptionally early. From all the indications that have come under our notice, the presumption is that stream driving is progressing favorably, the cool, dry weather preventing excessive floods, which are sometimes more embarrassing than a short supply of water.

STEAMSHIPS.

With the return of spring we are again strongly impressed with the rapidity with which the steamships are supplanting sailing vessels in our wood trade. Since the first of April no less than fourteen of these great steamships have already entered our harbor for deal cargoes, making an aggregate tonnage of 17,171 tons, and, estimating from the quantity carried by those already cleared, they will carry over 16,000,000 feet of lumber. The following is a list of the steamships, with their tonnage :—

Altmore, 1,352,	Crest, 1,098,
Cherubini, 1,161,	Autocrat, 996,
Jothington, 1,290,	Parklands, 1,133,
Brooklyn City, 1,122,	Ashburne, 1,613,
Benledi, 999,	Fitzroy, 1,064,
Jas. Turpie, 1,140,	Galatea, 1,330,
State of Alabama, 1,511,	Broomhaugh, 1,362.

DEALS.

The deal market is still very firm. $11 per M. superficial feet is now the price for good deals. Some sales are reported of special specification lots as high as $12, but these rates are exceptional. There appears no prospect of prices being lower for some time to come.

FREIGHTS.

There is no material change to note in deal freights, the steamships continuing to monopolize the market for the time being; two of them, to arrive, were recently placed at 47s. 6d. and 50s. respectively.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	14,082,000 Sup. feet.
" United States	3,687,006 "
" West Indies	287,000 "

No shipments of sugar box shooks since last report.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

John Black, 545, W. C. England, E. C. I., or Glasgow.
Kate Crosby, 696, E. C. I., W. C. E. or Glasgow.
Chrysolite, 1,097, Liverpool.
Antwerp, 573, ——
Albuera, 655, W. C. England.
Ophir, 813, Liverpool.
Serrano, 594, ——
M. A. Palmer, 299, ——
Orontes, 740, W. C. England.
Altamaha, 314, W. C. England.
Arklow, 740, Liverpool.
State of Alabama, (s), 1,511, United Kingdom.
Ashburne, (s), 1,613, United Kingdom.
Fitzroy, (s), 1,064, United Kingdom.
Henry, 1,095, Liverpool.
Georgie, 646, W. C. England.
Galatea, (s), 1,330, United Kingdom.
Rurik, 881, ——
Minnie Swift, 1,150, discharging.
Broomhaugh, (s), 1,362, United Kingdom
Low Wood, 1,091, W. C. England.
Endrick, 325, ——
Crown Jewell, 716, W. C. England.
Melbourne, 621, ——
Maori, 656, discharging.

ALBANY.

MAY 10.—Quotations at the yards are as follows :—

Pine, clear, ℔ M	$55 00@63 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in	00 26@00 32
Pine, 10-in. boards, culls	00 15@00 19
Pine, 10-in. boards, 16 ft., ℔ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	28 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2¼x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ℔ M	35 00@40 00
Ash, second quality, ℔ M	25 00@30 00
Cherry, good, ℔ M	60 00@70 00
Cherry, common, ℔ M	25 00@35 00
Oak, good, ℔ M	38 00@43 00
Oak, second quality, ℔ M	20 00@25 00
Basswood, ℔ M	22 00@25 00
Hickory, ℔ M	36 00@40 00
Maple, Canada, ℔ M	28 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ℔ M	35 00@40 00
Shingles, shaved, pine, ℔ M	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ℔ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 70

BOSTON.

The *Journal of Commerce*, of May 6th, says : Since our last report there has been a fair and steady movement. At the same time buyers are taking hold very cautiously, and are careful how they order, especially in a large way. Values remain about the same, with the exception of spruce, which is a little weak and can be bought somewhat lower (by the cargo) than last week, in the New York market. Here prices remain about the same as before quoted, with a fair demand. Pine is in good demand, as are clapboards and shingles also. This fact is accounted for by the large amount of alterations which is going on. As regards hard woods, there is not very much that is new to say. The demand is fair, and pretty evenly divided. Walnut and cherry may be said to be in good demand, with ash, whitewood and oak called for in about the order named. There is considerable trouble at the west among the loggers and mill hands concerning wages. Should their demands be acceded to it would have a tendency to further stiffen values all around. The following quotations are for carload lots :—

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

CHICAGO.

MAY 4.—The *Northwestern Lumberman* says: The past week has been a lively one in the matter of receipts of lumber and shingles at this port.

As to the general condition of stocks, the daily digest of the Exchange for May 1 estimates the stock of lumber on hand at that time at only 55,000,000 feet in excess of that of the same date last year, a very small excess when compared with the enormous excess of the season in receipts.

On Friday of this week an effort was made by a yard dealer to have a price list meeting of the Exchange called for the object of making a reduction in prices. This movement had not resulted in anything definite when the *Lumberman* went to press. It however shows the feeling of a section of the yard trade in a manner that cannot be mistaken.

Receipts and shipments of lumber and shingles for the week ending May 4, as reported by the Lumberman's Exchange :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	53,897,000	18,346,000	42,579,000	27,810,000
1881	41,413,000	16,927,000	32,921,000	20,585,000

Receipts and shipments of lumber and shingles from January 1, to and including May 4th :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	267,442,000	100,932,000	592,307,000	230,010,000
1881	116,054,000	63,818,000	362,613,000	141,685,000
Inc.	151,388,000	37,114,000	229,694,000	88,325,000

LAKE RECEIPTS TO MAY 4.

1882	175,901,000	78,085,000
1881	38,787,000	33,000,000
Increase	37,114,000	45,085,000

STOCK ON HAND APRIL 1.

	1882.	1881.	1880.
Lumber	279,324,096	322,491,234	263,452,581
Shingles	115,263,625	125,648,264	113,593,000
Lath	20,518,306	33,338,899	30,126,770
Pickets	3,802,011	1,589,064	849,238
Cedar posts	145,335	79,887	47,797

OSWEGO, N.Y.

Three uppers	$42 00@46 00
Pickings	32 00@36 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	11 00@14 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@40 00
1½ inch	34 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1½ inch mill run	18 00@25 00
" " culls	12 00@15 00
1x6 selected for clapboards	25 00@40 00
Shingles, XXX, 18 inch, pine	4 00@ 4 30
XXX, 18 inch, cedar	3 00@ 3 50
Lath	1 60@ 2 25

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@48 00
Common	20 00@22 00
Culls	14 00@15 00

GLASGOW.

The *Timber Trades Journal*, of April 29th, says :—Two public sales of American timber and deals have been held during the week. At Messrs. Edmiston & Mitchells' sale on the 20th, the goods offered comprised the usual description of Canadian woods, and a derelict brig's cargo of spruce deals from Buctouche, N.B., sold without reserve. The attendance from city and country districts was very numerous, and the various lots were taken up with spirited bidding. The sale at Glasgow on the 25th of April, by Messrs. Geo. Gillespie & Co., as undernoted, was confined to deals only, chiefly first quality, and a good proportion of the catalogue was cleared out :—

Quebec 1st quality yellow pine deals—

12 ft.	12/13×3	2s 7½d & 2s 8d	per c. ft.
12 "	11×3	2s 2½d	"
11 "	12/13×3	2s 6d	"
11 "	11×3	2s 1d	"
11 "	9×3	1s 11½d	"
10 "	11×3	1s 11d	"
10 "	10×3	1s 10½d	"
9 "	11×3	1s 9½d	"
9 "	10×3	1s 9½d	"
9 "	9×3	1s 8½d	"
9 "	8×3	1s 7½d	"
9 "	7×3	1s 7½d	"

Do. 2nd quality yellow pine deals—

12 ft.	9×3	1s 5d	"
12 "	8×3	1s 4½d	"
12 "	7×3	1s 4d	"
9 "	11×3	1s 3d	"

LIVERPOOL.

The *Timber Trades Journal*, of April 29th, says :—There was a little more animation shown in our market during the past week, and an increase in the number of orders is apparent from the busier aspect of the carriers and railway wharves. No doubt much of this is to be attributed to the recent auction sales, where spruce deals and pitch pine timber have been forced off at low prices, especially the latter, as will be seen from the details given below.

The quantity of spruce deals now remaining in first hands is very small, and with the firm attitude maintained abroad by shippers prices should advance, provided the freight market should improve from its present low condition, to which it has fallen by the quantity of steam tonnage driven into this trade.

On the 21st of April Messrs. A. F. & D. Mackay offered one cargo of spruce deals and two parcels of birch, together with other goods, but with the exception of the spruce deals very little changed hands, the buyers being chiefly local dealers. The prices realized were :—

St. John, N.B., spruce deals—

	£	s.	d.	£	s.	d.
22 to 27 ft. 3×11	8	12	6			
20 " 21 " 3×11	8	10	0			
16 " 3×11	8	10	0			
15 " 3×11	8	7	6			
14 " 3×11	8	5	0			
13 " 3×11	8	5	0	8	7	6
12 " 3×11	8	5	0			
9 to 11 " 3×11	8	2	6	8	5	0
20 " 3×9	8	2	6			
16 " 3×9	8	2	6			
15 " 3×9	8	5	0			
13 " 3×9	8	0	0			
12 " 3×9	7	17	6			
23 to 28 " 3×7	7	7	6			
21 " 22 " 3×7	7	6	3	7	7	6
20 " 3×7	7	7	6			
19 " 3×7	7	7	6			
18 " 3×7	7	7	6			
17 " 3×7	7	7	6			
13 & 14 " 3×7	7	6	3			

St. John birch—

17 to 18 in. deep	22½d	per foot.
15 "	17½d	"
14½ to 16 "	16d	"
15½ "	15½d	"
13 to 15½ "	14¼d	"

THE WILLOW AS A TIMBER TREE.

We quote the following from a paper by Mr. N. H. Egleston in the *Popular Science Monthly* for May :—

There are some trees which are deserving of more attention than has yet been given them in this country. The willows, for instance, have seldom been cultivated in a large way ; and yet there are few trees so easily grown, or which will pay better for cultivation. They adapt themselves to a wide range of soil and climate. They grow on high ground and on gravelly soils not less than by the sides of streams, where we most commonly find them. They are of rapid growth and yield a large return. The osier-willow is specially useful, we know, for the manufacture of baskets, chairs, and other furniture, and we import it to the extent of $5,000,000 annually, when we might produce it easily in almost any part of our country. We hardly think of the willow as a timber tree or for the production of lumber, but only as yielding a cheap, poor sort of fuel. But in England the wood is greatly prized for many purposes. While it is light it is also tough ; it does not break into slivers. Hardly any wood is so good, therefore, for the linings of carts and wagons used in drawing stone or other rough and heavy articles. It makes excellent charcoal, especially for the manufacture of gunpowder. It bears exposure to the weather, and boards made of it are very serviceable for fences. Some species of it are admirable for use as a live fence or hedge. On account of its comparative incombustibility, the willow is eminently useful for the floors of buildings designed to be fire-proof. It grows to a large size and furnishes a great amount of lumber. There is a white willow growing in Stockbridge, Massachusetts, which at four feet from the ground measures twenty-two feet in circumference and extends its branches 50 feet in every direction. Tradition says it was brought from Connecticut in 1807 by a traveller, who used it as a riding switch. The Hon. Jesse W. Fell, in giving an account of experiments in tree-planting, on an extensive scale, in Illinois, says : "Were I called upon to designate one tree which, more than all others, I would recommend for general planting, I would say unhesitatingly it should be the white willow." Professor Brewer says : "In England, where it is often 60 or 70 feet high in 20 years, there is no wood in greater demand than good willow. It is light, very tough, soft, takes a good finish, will bear more pounding and knocking than any other wood grown there, and hence its use for cricket bats, for floats to paddle-wheels of steamers, and brake-blocks on cars. It is used extensively for turning, planking coasting vessels, furniture, ox-yokes, wooden-legs, shoe-lasts, etc." Fuller says : "It groweth incredibly fast—it being a by-word that the profit by willows will buy the owner a horse before that by other trees will pay for the saddle." The basket-willow, well cultivated, will yield a net income of $150 a year to the acre. On the whole, therefore, it would seem that the various kinds of willow, the economic value of which has been hitherto entirely overlooked in this country, are eminently deserving of attention, and will amply reward those who cultivate them.

WALNUT THEN AND NOW.

A few days ago a gentleman from Indiana visited the office of the *Northwestern Lumberman*, and his recital regarding the early hardwood operations in that state were highly interesting.

"The walnut business," he said, "has changed materially since I commenced operations in 1856. I believe I was the first to ship walnut out of the state, for I drew lumber several miles to the terminus of the Lake Shore road that was being pushed westward. There was no trouble in getting walnut then. I remember a tree that stood not far from my mill in De Kalb county, and it was decidedly the finest walnut I have ever seen. The owner of it asked me $5 for it, but I thought the price too high, and offered him $4. I afterward offered to split the difference and give him $4.50, but he was a one price man, and finally I gave him the $5. I had it cut and hauled to my mill, where it lay for a year or so before I sawed it. In the second year of the war I filled a contract for gun stock timber, and cut the big tree into this material. The butt log made 1,800 feet of clear stuff. The whole tree made 5,253 feet of lumber with the culls out. Culls in those days didn't count. They were used for veneering hog pen floors, and like purposes. I sold the lumber cut from this tree for $17 a thousand, which I considered a good price, as up to this date $16 was the most I had obtained. For the latter price I have sold thousands and thousands of feet of as fine counter tops as were ever manufactured. Speaking of this tree, by the way, could I now find its mate I would willingly pay $200 for it standing, and when sawed into lumber it would bring me $500."

"How about the standing supply of walnut in Indiana?"

"It is very small. When I settled in De Kalb county there were millions of feet of it, but there are not now to exceed 200,000 feet in the entire county. Walnut everywhere in the state is fast playing out. There are some fine trees held by eastern capitalists, but fine trees are scarce. High prices are inducing men to cut the trees that have been left upon the farms for shade trees. These are not usually more than a foot or so in diameter, but for certain purposes they are preferred to older ones. It is a shame, though, to cut them for they would pay a good rate of interest if they were allowed to grow for a few years yet. There is no such thing as meeting the demand in Indiana for walnut lumber. It is wanted both east and west."

REMARKABLE TREE GROWTH.

A Madras paper, referring to the gardens of the Agr-Horticultural Society in that city, says: "The rain-tree *(Pitheco obium saman)* in the gardens, the measurements of which were given in the proceedings of 7th of August, 1878, and then believed to be under six years from the seed, continues, in spite of its having been necessary to amputate some of the largest limbs, to grow enormously. Measured on the 30th of July last it gave in girth 9 feet 4 inches at the ground, 6 feet 3 inches at three feet high, and 5 feet 9 inches at five feet high ; in spread about 85 feet from north to south, and a total height of about 46 feet. A reference to the former measurements shows that the girth at three feet from the ground has increased in the last three years 2 feet 2 inches. The age of the tree is, if anything, overestimated ; but search is being made for traces of the receipt of the seed, which, it is believed, came from Ceylon about 1872. A casuarina-tree standing alongside, which was the specimen of its order when that part of the ground was laid out as the Botanical Garden, and is therefore known to be about ten years old, now measures at 5 feet from the ground only 2 feet 8½ inches, though it is about 82 feet high."

Houses for Transport.

QUEBEC, May 4.– The manufacture of houses is being rapidly pushed by the company formed for the purpose at St. Romuald, and of which Mr. Gravel is manager. The company commenced by building little wooden houses twenty-four feet square for transportation to Panama for the use of the workmen on the Isthmus canal. They have now entered into a contract with Sheriff Quesnel of Arthabaska to construct a thousand houses to be forwarded to Manitoba, some of which are three stories high and sixty by eighty-three feet.

Port Hope Shipments.

The Port Hope *Times* says that during the past month shipping has been very active in Port Hope, more especially in lumber. The figures show that it is ahead of the records of any previous year. The following are the amounts shipped :—

Lumber, (feet)	10,390,179
Laths	200,100
Shingles	5,065,000
Ties	14,047
Cedar posts, (cords)	31

THE steam tug *Ivy* and tow of six light barges arrived up at the Chaudiere, at Ottawa, on May 6th, to load lumber.

$200.00 Reward !

Will be paid for the detection and conviction of any person selling or dealing in any bogus, counterfeit or imitation Hop Bitters, especially Bitters or preparations with the word Hop or Hops in their name or connected therewith, that is entended to mislead and cheat the public, or for any preparation put in any form, pretending to be the same as Hop Bitters. The genuine have a cluster of Green Hops (notice this) printed on the white label, and are the purest and best medicine on earth, for Kidney, Liver and Nervous Diseases. Beware of all others, and of all pretended formulas or recipes of Hop Bitterf published in papers or for sales as they are frauds and swindles. Whoever deals in any but the genuine will be prosecuted. Hop Bitters Mfg. Co., Rochester, N. Y.

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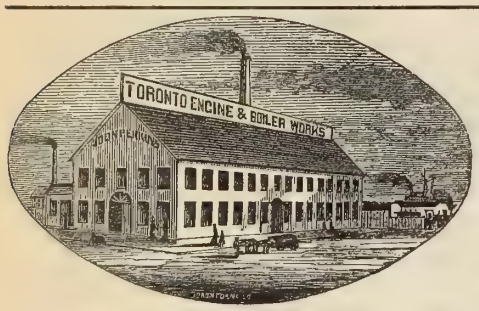

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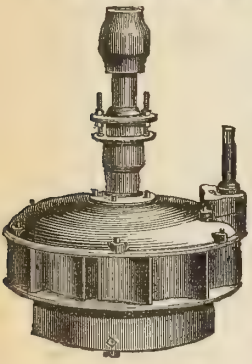

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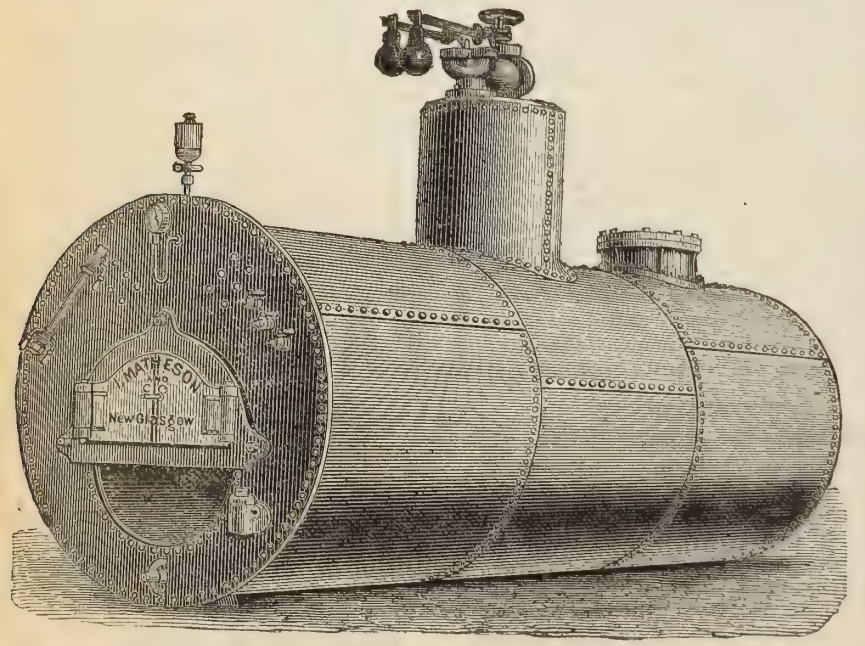

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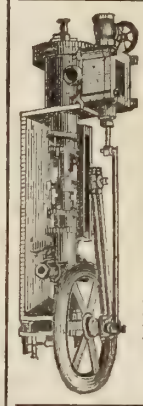

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ENGINEERS AND FOUNDERS,

MANUFACTURER OF

Steam Engines, Rotary Pumps, of all sizes, for Paper and Pulp Mills, Steam Pumps, and a Variety of other Pumps, Propeller Engines for Yachts & Tow Boats.

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Oak, Ash, Cherry, Black Walnut, Poplar, Butternut

And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.
Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally. L7

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THE BELT OF THE FUTURE FOR DRIVING THRESHING MACHINES

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Can be shortened or lengthened by inches as desired. Can be run several inches out of line. No 260 weighs 120 lbs. per 100 feet. Other sizes in proportion. Two Wheels, 40 to 48 in. Drive Wheel and 7 to 9 inch Cylinder Wheel, are worth $15.00.

Orders Early as it takes four weeks to prepare chain.

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We guarantee chain to work well and to be far superior to any belt made.

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Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19

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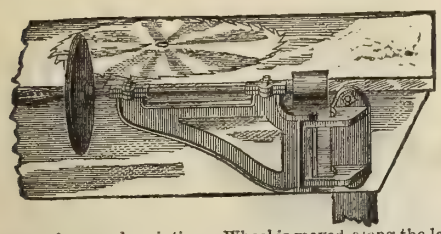

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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BOILER FEED PUMPS,
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PUMPS SPECIALLY ADAPTED for
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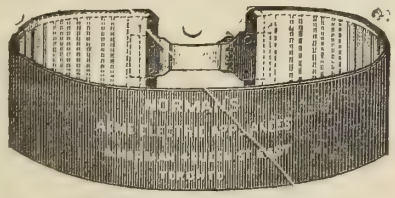

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HOYT'S CELEBRATED LEATHER BELTING.
COTTON BELTING, for Flour Mills. &c., Superior Quality.

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Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞ Quotations furnished for any part of Canada. 1L21

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Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

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Manufacturers of

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Fire-Engine HOSE,

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Manufacturers of Every Variety of

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☞ SAWS REPAIRED ☜

Emerson Pattern & Lumberman's Clipper

INSERTED TOOTH SAWS A SPECIALTY.

Every Saw Warranted.

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Manufacturers of all Descriptions of

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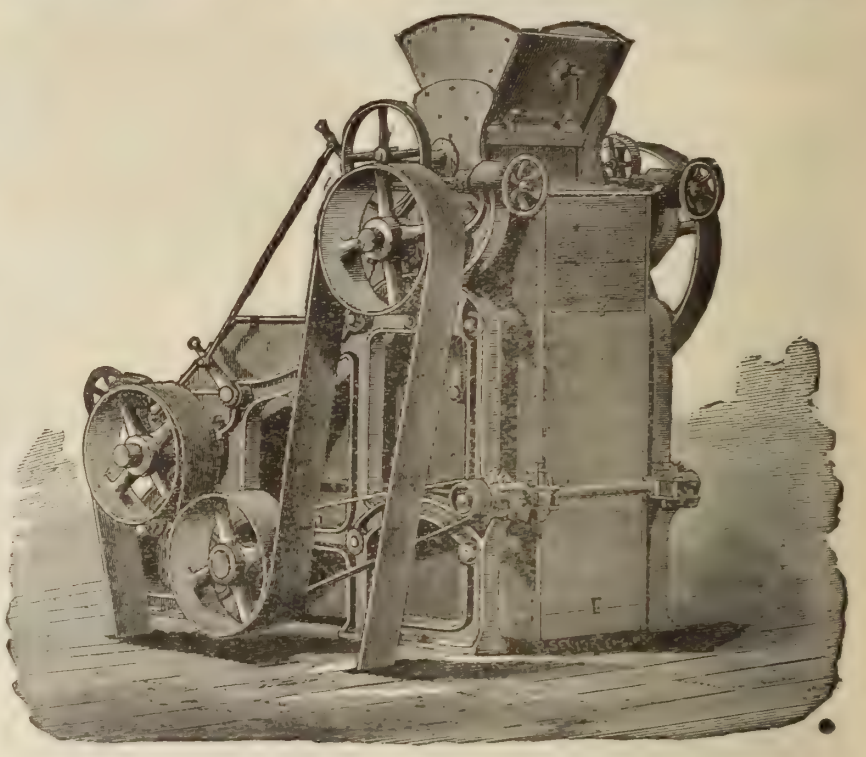
THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

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M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

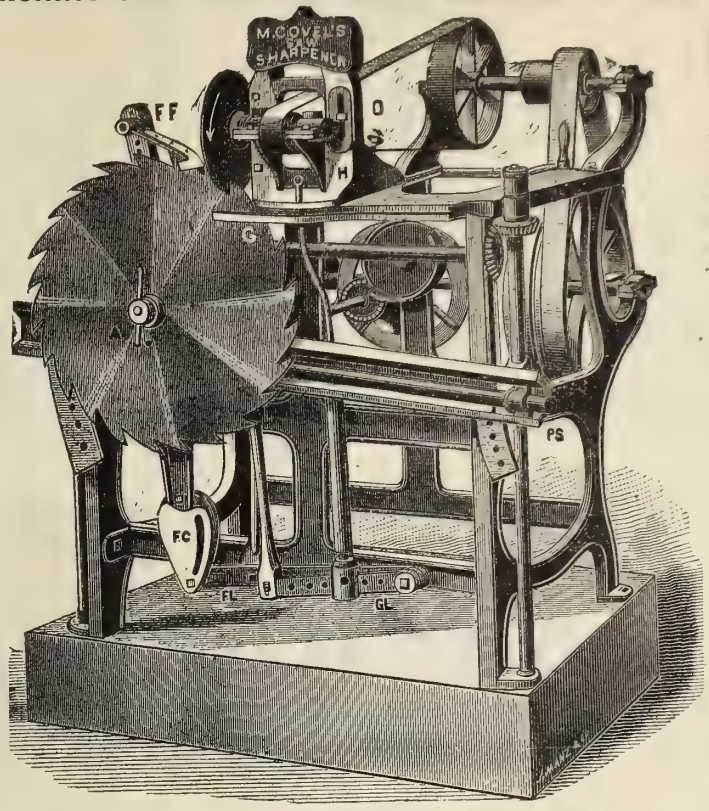
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.

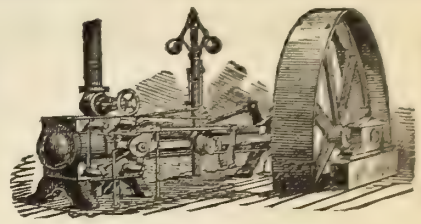


MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS

CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1Ltf

WILLIAM HAMILTON,

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We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices.

All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.

BOOK-BINDING of every Description got up in a very Neat and Superior manner.

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DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

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Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

1L1

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

VOL. 2. **PETERBOROUGH, ONT., JUNE 1, 1882.** **NO. 11.**

At the American Forestry Congress a resolution was adopted favoring the establishment of experimental stations of forestry throughout the United States, similar to the German plan, and urging that Agricultural Colleges should take an active part in the work.

A factory for the manufacture of furniture veneering from gum wood, so abundant in almost all sections of the southwest, has been erected at Poplar Bluff, Mo., on the line of the St. Louis & Iron Mountain railroad. The grain of this wood is said to be very fine, and when polished, remarkably beautiful.

Commendable zeal for tree planting was shown in Ohio, among other states. It took the novel form of proclamation by the governor, in accordance with a resolution adopted by the legislature, advising people to turn out on April 27 to plant saplings by the roadsides, around their houses, or, when practicable, in groves.

Williams, Jerome & Brown are surveying for the purpose of ascertaining the feasibility of constructing a canal from the east branch of the Au Gres, above the bar, to Canada Creek, in order to facilitate the getting out of logs on the east Branch, and also surveying with a view, if the canal is not feasible, of building a railroad from the east branch to the bay.

The *Northwestern Lumberman* says about 100,000 rolling-pins were lately corded up on Bear river, at the foot of Mitchell street, Petoskey, Mich. That amount of rolling-pins means a vast development of woman's muscle before the 100,000 dough mashers are worn out. Besides, it means a utilization of northern Michigan timber in one of the many peculiar ways.

The Thorold pulp mill have added many additions to their mill to meet the large demand for its commodity. Among the additions is another water wheel 12 feet in diameter, which will give 20 feet head additional water, and two sets of stones have to be put in, to take the place of two which were recently broken. These improvements are calculated to double the capacity of the mill.

There are probably no more valuable forests in the world than those of Oregon, Washington Territory, and British Columbia. The yellow fir, which grows there to a great height and luxuriance, scarcely has an equal for shipbuilding. The supply at present is very abundant accessible; but there is danger that waste will change the present abundance into scarcity before many years. The rule is: "Let those who live latest have their timber furthest," and in seeking the best now, much that is really good and valuable is ruthlessly destroyed.

QUEBEC FORESTS.

We find in the annual report of the Commissioner of Crown Lands for the Province of Quebec the following interesting information:—

On comparing the receipts of the present year—especially those from the Crown Lands, Woods and Forests, Mines, etc.,—with those of the preceding years, it will be perceived that a very considerable increase has been derived from the same sources. Since confederation, the woods and forests have not yielded so large an income, the mean revenue having been $393,910 (and the annual revenue since 1875 having been even below the average.) The same may be said of the Crown Lands.

The main cause of increase in revenue is due, not only to the present prosperous state of the province, but also to the more strict attention on the part of the department, and the adoption of more efficacious measures for the protection of our woods and forests, and the collection of the revenues derived therefrom, as well as those arising from the sale of lands. Competent bushrangers have been appointed in every part of the Province where they were most needed; and I am happy to state that their services have been very useful from all points of view.

The Act for the protection of forests from fire has received my particular attention, and with a view to prevent the recurrence of fires such as have at times laid our forests waste, I have taken measures to have the provisions of the law better known, and have instructed all timber and land agents, all forest-rangers and game-overseers, to see that it is strictly enforced. The Province of Quebec has been happily preserved from such conflagrations as have lately destroyed vast timber limits in the Province of Ontario and the United States. This protection of our woods and forests is undoubtedly one of vital importance to the Province, not merely from economic and climatic points of view, but also with regard to the revenue. I have, therefore, been careful to give particular attention to this part of the duties devolving upon me.

Another question of importance directly connected with the preceding is that of restoring and keeping up our forests.

We have not yet, as in parts of Europe, especially France, adopted any system of tree culture. This question was brought before the American Government, by whom Mr. Franklin B. Hough was commissioned to obtain all the information that could be procured on the subject; and in 1877 this gentleman submitted an elaborate and very interesting report. The United States Government has not yet, to my knowledge, adopted any general system of forest restoration. There have only been a few attempts made in that direction on the western prairies, in accordance with laws passed in 1873 and 1874.

The Legislature of the Province of Quebec decreed in 1875 that it should be lawful for the Lieutenant-Governor in Council, upon the recommendation of the Commissioner of Crown Lands, to set aside certain portions of the forest lands of the Crown, vacant at the time, to remain forest. This law further adds:—"The territories so set apart shall be reserved for the production and culture of timber, and shall be worked and managed, and the timber thereon be cut, as shall be ordered from time to time by regulations made by the Lieutenant-Governor in Council.

Up to the present time, the Department of Crown Lands has not deemed it necessary to give practical effect to the provisions of this law, but its importance is likely to become evident at no distant date.

There can be no doubt that the value of our woods and forests must increase year by year; and I do not hesitate to say that the greatest care and prudence should be exercised in the sale of our timber lands. It is true that two sales have been held since I have been in charge of the department, but in both cases there were strong reasons for such action, which was also in the public interest. A comparison of the average price obtained at these two sales with those obtained in former years is sufficient to convince anyone that the value of our forest lands must increase annually.

It is proper to remark that the receipts from woods and forests for the year embraced in this report were not effected by the change or slight increase of the timber dues lately made. The effect of this change will only be felt in the fiscal year ending 30th June next.

THE FORESTS OF RUSSIA.

The United States consulate-general, of St. Petersburg, has prepared a report upon the timber trade of Russia which is replete with facts and figures. The wood trade of the northern regions of Russia, and particularly the basin of the White Sea and its affluents, is pronounced excessively slight in comparison with that of the neighbouring countries of Norway and Sweden. The radius of the forests of Vologda and Archangel has a superficial area of 197,100,000 acres, it is estimated.

The wooded regions of Sweden cover an area of some 40,500,000 acres, and those of Norway 16,200,000 acres. Notwithstanding the fact that the figures show Russia to have considerably over twice the estimated radius of area, the wood exports of these countries differ to the extent that the two Russian governments export 124,000,000 cubic feet, and Sweden and Norway export 1,200,000,000 cubic feet. Only a minor portion of this wood is exported abroad, the amount being:—From White Sea ports, 10,775,000 cubic feet; Swedish, 200,000,000; Norwegian, 82,891,000 cubic feet. The export of the Northern ports of Russia, is accordingly 94 times less than that of the Norwegian ports, and 88 times less than that of the Swedish ports, in face of the fact that the Russian government possess nearly five times as much new land as Sweden, and 12½ times as much as Norway. The export of forest products from Sweden even superior to that of all Russia, which is but 637,000,000 cubic feet. The revenues of Sweden from this source, largely increased each year during the past decade, now amount to 229,000,000 francs.

The most striking fact in the Russian wood export trade is that the largest export comes from the less-wooded districts, for while these districts export 122,715 cubic feet per acre, the northern governments export but 8,451 cubic feet per acre. With Russia there has been an immense falling off in export during the last seven years.

In order to increase the revenues to be derived from wood, it is unnecessary that the raw material should be worked up on the spot. In Sweden, in 1871, there were only seven manufactories of wooden articles, but five years thence the number was increased to 29. The governments of Valogda and Archangel possess but 11 saw mills, whereas in Sweden there are 1,350. The great mass of the imperial forests of Russia are concentrated in the northern and northeastern at the north of the Volga and Kama, and on the right bank of the Volga, in the Government of Limbirsk. The governments richest in forests yield the least average income. —*Northwestern Lumberman.*

FOREST PRESERVATION.

Senator Sherman, of Ohio, has introduced into the senate a bill for the preservation of the woods and forests of the national domain adjacent to the sources of the navigable rivers and their affluents in the United States. It provides that all the public timbered lands adjacent to the sources of the navigable rivers and their affluents be withdrawn from public sale and entry; that Major-General Wright, chief of the corps of engineers, United States army, Major-General William B. Hazen, commanding the signal corps, Dr. George B. Loring, commissioner of agriculture, and Professor Spencer F. Baird, secretary of the Smithsonian Institution, shall form a commission for the examination of the subject of the preservation and cultivation of woods and forests adjoining the sources of the navigable rivers and their affluents, for the purpose of preserving the same and increasing their growth by planting there, and along the source of these rivers where land is timberless, so that the rivers may be kept in a navigable condition by promoting a continuous supply from their sources and affluents, the fact having become universally known that the destruction of the woods causes all countries to become arid and unprofitable deserts.—*Northwestern Lumberman.*

ALGOMA FORESTS.

The *Thunder Bay Sentinel* writes as follows: During the past winter a number of our enterprising citizens formed themselves into a company or rather joined together in an informal manner, and formed a fund for the purpose of paying the expenses of sending out a number of exploring parties, whose mission it was to hunt up tracts of timber land.

Three separate parties were made up, and spent the winter in the woods, in different directions, returning towards spring with good news. One of the exploring parties reported the discovery of a pine forest, covering 4,000 acres of land, and a number of smaller tracts of valuable timber lands. Another party made a discovery of an immense tract of land which was not very far from the coast, and well timbered throughout. A survey of a portion of this has been forwarded to the Crown Land Office to secure it, and we understand further surveys will be made, and larger tracts of it secured at once.

The third party were also successful in finding a number of small tracts of pine lands and other tracts well wooded with tamarack, birch, poplar, maple and cedar, all of which will come in useful in various ways.

These discoveries have been made within a radius of 50 or 60 miles of Prince Arthur's Landing, which is but a small area in a district of over 400 miles in extent. It is of sufficient importance to the country to prove that all who claim to know so much of the barren wilderness of Algoma, know but very little of it, in fact know nothing of it whatever, and have merely surmised from seeing a rocky and apparently barren coast, that such is the nature of the country inland.

The *Sentinel* has always refuted any statement regarding the barren nature of the district. Many explorers have met with tracts of excellent land, suitable for farming purposes. In the regions of Black Bay and Nepigon there are large tracts of as fertile land as can be met with in the richest portions of Ontario, while in the neighbourhood of P. A. Landing, in the townships of Oliver, McIntyre and Neebing there are lands (Free Grant some of them) which are unequalled for strength of soil, and also to the west in the townships of Blake, Crooks and Pardee, are found large tracts of pine lands, which were mostly taken up years ago by speculators, and some are now being used for the lumber supply of this region. The inland portion of Algoma is but little known, but enough is known of the country within a radius of say 75 miles of P. A. Landing to prove that its forest wealth is no small item of value to the district, and with continued explorations, we may look for further important discoveries in this direction.

A NEW FIELD.

The importance of the immense demand for lumber that is springing up, and will continue to expand, in the new Northwest that lies on both sides of the British line, stretching westward from the Red River of the north 500 to 600 miles, through almost a timberless region, cannot be overestimated. Pertinent to this conclusion, it is well to note the progress that is being made in the construction of the Canadian Pacific railway. There is now under contract, and to be completed by September 1 next, sections of the line as follows :—

	Miles.
From Thunder Bay to Winnipeg	425
Pembina branch, from St. Vincent to Stone Fort.	85
Pembina mountain branch	100
From Winnipeg to present end of track	180
Under contract for completion this season to Calgarry	500
Total	1,290

Calgarry is at the foot of the Rocky mountains, 500 miles west of Winnipeg. The country from the Red River to the mountains is almost unbroken prairie. As fast as the road is completed a tide of emigration will flow along its entire length, the rich wheat lands of the prairie region will be settled, towns and cities will spring up, every stage of development calling for increased supplies of lumber. Not only this, but numerous lines of branch road have already been projected, and others will be, until every county between the Canadian Pacific and the Northern Pacific will be banded with iron, which will be studded with villages and cities. It does not require a stretch of imagination to see how this settlement of a vast timberless area of rich agricultural and grazing lands will call for lumber. Is it any wonder that the northern timber manufacturers are in such a blissful state of satisfaction now-a-days?—*Northwestern Lumberman.*

SIX MONTHS' EXPORTS.

In February last a return was requested by the House of Commons of the quantity and value of the exports and imports of the Dominion (by Provinces) for the six months ended 31st December, 1881.

The following are the exports of forest products returned for the six months in question :—

QUEBEC EXPORTS.

	Quantity.	*Value.*
Tanbark	34,327 cords.	$ 174,401
Deals	70,767 S. hun.	2,916,158
Deal ends	.....	97,394
Planks and boards	64,919 M. ft.	686,375
Staves and headings	440 "	32,396
Standard staves	296 M.	98,325
R. R. Ties, &c	98,310 pcs.	60,486
Birch timber	172 tons	52,972
Elm "	15,063 "	187,350
Maple "	842 "	11,244
Oak "	33,932 "	681,618
White Pine lumber	165,067 "	1,896,598
Red Pine "	8,922 "	169,406
Maple sugar	272,095 lbs.	20,368
Pot and pearl ashes	7,057 brls.	194,626

ONTARIO EXPORTS.

Firewood	78,470 cords	$149,717
Hop and other poles	.....	73,947
Oak logs	4,603 M. ft.	64,415
Other logs	17,358 "	51,776
Laths and palings	45,500 "	49,085
Planks and boards	324,341 "	3,859,353
Staves and stave bolts	.....	116,286
Shingles	32,355 "	75,237
R. R. Ties, etc	909,936 pcs	208,958
Sugar Box Shooks	54,958 "	19,558

NOVA SCOTIA EXPORTS.

Firewood	26,972 cords	$ 87,206
Deals	95,485 s. hund.	518,790
Planks and boards	28,805 M. ft.	60,705
Birch Timber	6,094 tons	28,451

NEW BRUNSWICK EXPORTS.

Tanbark	8,280 cords	$ 43,165
Deals	95,485 s. hun.	2,419,871
Deal ends	4,570 "	78,734
Laths and pickets	50,711 M. ft.	60,705
Planks and boards	16,722 "	138,107
Scantling	7,525 "	51,815
R. R. Ties and sleepers	377,691	39,449
Sugar-box shooks	49,972	27,216
Birch Timber	6,217 tons	39,187
White Pine Timber	2,590 "	20,947

PRINCE EDWARD ISLAND EXPORTS.

Deals and deal ends	923 s. hund.	$14,315

BRITISH COLUMBIA EXPORTS.

Planks and boards	16,362 M. ft.	$187,659
Laths and pickets	1,536 M.	4,374

Recapitulation of six months' exports of Canadian forest products for the latter half of 1881 :—

	Value.
Ontario	$4,812,498
Quebec	7,668,715
N. Brunswick	2,958,973
Nova Scotia	983,002
British Columbia	192,933
P. E. Island	16,095
Total	$16,632,216

PRESERVE THE FORESTS.

In discussing the recent forestry congress at Cincinnati, the *American Engineer*, after giving the names of the officers of the association then formed, says :—It is to be hoped and expected, from the array of names presented above, that something more than the mere formation of the association will result, for it is high time that laws were created, and means perfected for executing them, to prevent the wholesale and ruthless destruction of our woods and forests, which a profitable product in the hands of unscrupulous individuals and corporations has hitherto induced. No considerations whatever, whether on sanitary, meteorological or æsthetic grounds have as yet hindered this persistent denudation of our timber lands, a denudation not carried on in the light of an economy which an ultimate failure of supply wonld suggest, but in a careless wantonness, displaying an utter lack of principle in the operations connected with the trade. It may be partially true that lumbering operations involve waste, it is none the less true that care should be taken that this waste be reduced to a minimum, a matter which the most careless observer of our great lumber trade will aver is far from being realized. The possibility of regulating the operations of the lumber men being a difficult one, and the industry so extended, it would seem that the best remedy is an effort to continue the supply, and this the forestry congress proposes to do, among its other worthy propositions. The lumber trade is not the great end in view, however, for if the efforts of scientific research foretell truth, hygienic and meteorologic principles are involved bearing largely upon the welfare of our growing population, and while it may be well to support a great industry, it is surely better to provide for the good of the people generally, which we believe will be promoted by prompt and energetic attention to the forestry claims of this vast continent.

QUEBEC TIMBER LANDS.

The Quebec *Chronicle*, in an article on the resolutions granting land to railway companies, has the following :—

"The public domain of this province may be roughly classed under two heads—lands fit for agricultural or colonization purposes, and held for that object, and lands generally not well adapted for colonization, but valuable for mercantile purposes from the timber with which they are clothed. Both classes, in a sense, belong to the Crown, which, in the former case, holds them as absolute property, and in the latter case, subject to the tenure or rights of the licentiates or holders of the timber licenses. And these rights have been carefully defined by statue, by orders-in-council establishing regulations for the Crown Land Department, and by judicial interpretation in the courts of both provinces. Without going into detail, it may be asserted, without fear of contradiction, that the limit-holder, so long as he pays the ground rent for his limits and the stumpage on the timber cut by him, is entitled, as the law now stands, to the yearly renewal of his license in perpetuity with the single exception of the case of lots included in his license, being taken up by *bona fide* resident settlers, for colonization purposes, which lots the Government are properly enough bound to exclude on next renewing his license. And this risk, the risk of *bona fide* settlement by families taking up lots of say 200 acres each, the limit-holder by the term of his contract agrees and is content to run. That this is the true view of the law on the question, no one at all conversant with the subject can for a moment doubt. The licentiates of timber berths in this province, therefore, at the present moment, hold property in these berths—valuable property, for the security of their tenure to which the faith of the Crown has been pledged in a hundred different ways, and which in many instances they have bought at large prices from the Crown Land Department itself, at public auction sales held in its very offices. To give one instance out of many of Government recognition of the licentiates property in limits, the regulations of the Crown Land Department provide that they may be pledged in their books for advances, and as a matter of fact this provision is daily made use of to a large extent. On the faith of this tenure, not only have immense sums been paid for limits both to the Crown at public sales and to private individuals, but the holders have further gone to great expense in improving creeks and rivers, constructing slides, building roads, opening up farms, to enable the lumber to be got out and brought to market, and in building mills for its manufacture when got out. It is needless to state here what lumberers and the lumber trade have done for the development of this country, but we may say that, setting apart the Dominion subsidy and confining ourselves to local revenue, derived purely from local sources, the lumber trade, in ground rents, stumpage, Crown dues, etc., etc., contributes between one-third and one-half of the total income of the Province."

EVIDENCES OF A FIRMNESS.

The following circular issued by Gardner, Spry & Co., lumber dealers at Chicago, is a pretty reliable index of the future of the lumber market, and will interest lumber manufacturers :—

Herewith we hand you our revised price list, based upon the recent "bear" movement in this market. We desire to say, in connection herewith, that this decline is a repetition of the old song—"no stock and hence low prices." It will be obvious to you that a dealer with nothing to lose has everything to gain—*per se*, parties with no stock on hand or bought "to arrive," are perfectly safe in forcing a decline, because, under such circumstances, they desire the benefit of a falling market to buy on, if the wholesale market declines in sympathy with the yard movement.

That little word "if" is what breaks their hearts. To a disinterested person, the present situation would indicate anything but a decline. The well known shortage of the log crop, together with the disastrous and prolonged strike at Muskegon (the largest lumber manufacturing point in the world), will surely curtail the supply 40 per cent. over last year. This, in connection with good crop prospects, and up to date, the largest demand ever known, cannot fail to make a firm or advancing market.

BOARD OF TRADE RETURNS.

MONTH ENDED 30TH APRIL, 1882.

Timber (Hewn).	*Quantity. Loads.*	*Value. £.*
Russia	11,509	22,089
Sweden and Norway	104,177	153,479
Germany	52,017	170,755
United States	14,874	52,071
British India	7,633	95,827
British North America	203	640
Other Countries	32,252	33,452
Total	222,665	533,313
Timber (Sawn or Split, Planed or Dressed).		
Russia	16,082	33,459
Sweden and Norway	160,335	493,353
British North America	9,700	22,689
Other Countries	39,483	121,498
Total	225,600	670,999
Staves, (all sizes)	16,512	75,693
Mahogany (tons)	3,399	33,953
Total of Hewn and Sawn	448,265	1,204,312

FOUR MONTHS ENDED 30TH APRIL, 1882.

Timber (Hewn).		
Russia	18,673	43,609
Sweden and Norway	184,543	277,702
Germany	62,192	202,734
United States	48,974	165,908
British India	23,108	292,019
British North America	1,175	3,877
Other Countries	121,928	140,735
Total	460,566	1,126,584
Timber (Sawn or Split, Planed or Dressed).		
Russia	34,603	76,750
Sweden and Norway	276,934	804,372
British North America	51,703	128,217
Other Countries	88,970	282,408
Total	452,210	1,292,137
Staves (all sizes)	29,705	160,108
Mahogany (tons)	9,878	91,789
Total of Hewn and Sawn	912,776	2,418,721

FOREST DEVASTATION.

The *Sentinel*, of Prince Arthur's landing. Ont., in its issue of May 13th, says :—

The annual devastation of our forests has commenced. The fire mentioned in the columns of the *Sentinel* has assumed immense proportions and is emitting volumes of black smoke, which is settling like a pall over the north end of Thunder Bay. Another fire is also raging on the west side of the town, apparently on the borders of the Townships of McIntyre and Neebing.

In view of this annual destruction of timber, would it not be well for the Dominion Government to cause a searching enquiry to be made into the cause of such conflagrations. These fires must have an origin other than spontaneous combustion, for the frost is hardly out of the ground, and the weather has been anything but warm even this spring, and until within the past day or two there has not been what could be called anything but cold weather.

A punishment ought to be meted out to those who wilfully or carelessly cause such great destruction to our timber, for at the present it is of very great value, and in the near future will be worth to Algoma almost as much as her mineral resources.

$200.00 Reward!

Will be paid for the detection and conviction of any person selling or dealing in any bogus, counterfeit or imitation Hop Bitters, especially Bitters or preparations with the word Hop or Hops in their name or connected therewith, that is entended to mislead and cheat the public, or for any preparation put in any form, pretending to be the same as Hop Bitters. The genuine have a cluster of Green Hops (notice this) printed on the white label, and are the purest and best medicine on earth, for Kidney, Liver and Nervous Diseases. Beware of all others, and of all pretended formulas or recipes of Hop Bitterf published in papers or for sales as they are frauds and swindles. Whoever deals in any but the genuine will be prosecuted. Hop Bitters Mfg. Co., Rochester, N. Y.

F. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

LEATHER BELTING

First Prize, Provincial Exhibition.....Ottawa, 1875
First Prize, Provincial Exhibition..... Hamilton, 1876
First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition.....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

L21

81 Colborne Street, Toronto

TREES FOR THE STREETS.

At the Montgomery, Ohio, Horticultural society, a late discussion turned on the varieties of trees most suitable for planting in the streets, and in the monthly report was the following:—"The trees which were particularly recommended were the American and the European linden, the Norway, silver and sugar maples, elms, horse-chestnut, and the hardy catalpa. The The silver maple and white elm had been found to make a quick growth on strong soils. The most common error in street planting was in placing the trees too near together, often even less than a rod apart, when they should never be nearer than three rods apart. When thus crowded they were drawn up and distorted in form, and could not develop their full luxuriance Mr. Steele quoted a letter from Charles Downing, in which he said: "This city (Newburg) has the same fault as Dayton—trees 15 to 20 feet apart—unsightly when grown, and keeping the street wet and muddy after each rain storm. Maples should be 50 to 60 feet apart, and elms 70 to 80. There is one street in this city where elms are 70 feet apart on each side of the street, and yet the branches touch each other. Some of our readers will remember the wide streets in New Haven, Conn., where the long lines of American elm meet over the centre of the street and suggest the arch-work and tracery of a gothic cathedral, the resemblance to the interior of which is quite striking."

DESTRUCTION OF TREES IN SCOTLAND.

The indignation of the people of Devonshire when they heard that Baron Lyndon was about to cut down the Hacton woods, was mild in comparison with the rage and grief with which the news of the sale of Lord Huntley's famous Glen Tanar woods has been received in Aberdeenshire. There are considerably over 100,000 trees in these woods, and they are reported to have been sold to a Glasgow firm of timber merchants. Their destruction will considerably interfere with the "amenities" of Glen Tanar deer forest, which is let to Cunliffe-Brooks, M. P. Scotland can ill-afford to lose any more trees at present, for several places have been well-nigh devastated by last winter's gales. At Tyningham and Dunse Castle, the destruction has been prodigious, and at Luss, Sir James Colquhoun's place on the shores of Loch Lomond, some 6,000 trees fell. The Queen will find that her "policies" at Balmoral have lost some of their greatest ornaments and nearly 2,000 trees have been blown down in Her Majesty's forest at Ballochbuie. The havoc produced in Mar forest is almost incredible, especially on the north side of the Dee, where the oldest trees were; indeed, the scenery of the river has been pretty well destroyed, and there has been a heavy fall in Invercauld Forest.

THE Quebec *Chronicle* says that the two barges *Faraud*, Capt. Francois Desmarais, and *Alice*, Capt. Joseph Paul, both laden with lumber for the United States, while on their way up the St. Lawrence, under sail, struck the wreck of the steamer *Ottawa* near Cap la Rouge, at 2 a.m. on the 11th of May. The captains state that there was no light on the wreck at the time of the accident, and they have arrived in Quebec and made their protests. The two barges have become waterlogged.

CHARCOAL.

Mr. J. A. Mathieu, of Detroit, reports to the *Northwestern Lumberman* that the mill men are showing some interest in the manufacture of charcoal, a subject in which Mr. Mathieu is interested. He will soon erect sixteen retorts at Luther, Lake County, Mich., where the slabs of the mill of Waterman, Paney & Co. will be reduced to coal. A cord of pine slabs makes sixty bushels of charcoal, that is worth at least 6 cents per bushel at point of shipment, and as the slabs can be put through the retorts at as small expense as they can be consumed in a saw-mill hell, it is plain that there is a saving worth mentioning. The *Lumberman* has had a claim on fyle for years that there is too much needless waste of wood in this country, and it considers it a matter of public interest when a method or process is discovered whereby this wood, which has been burned in order to get it out of the way, can be utilized. The more charcoal there is, the better iron our furnaces will turn out, and if, in connection with this important fact, the refuse of the mills is a source of considerable profit to the mill men, it takes no arguments to show the value of charcoal manufacture. Mr. Mathieu is also erecting retorts at Portland, Oregon.

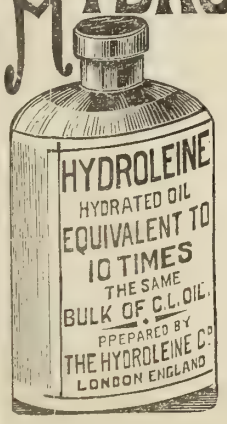
Sawdust Fuel.

George F. Brott, of Louisiana, and Platt B. Walker, of Minneapolis, have undertaken to solve the sawdust problem by means of a process for utilizing sawdust as a portable fuel, for which they have secured a patent. The process consists simply in mixing the sawdust with peat. the latter forming a cohesive paste, which when dry, results in a solid compound, that cannot be easily fractured, and can be as easily transported as wood or coal. Mr. Brott is now superintending the construction at Philadelphia of the necessary machinery for the purpose.

HYDROLEINE

(HYDRATED OIL.)

An artificially digested Cod Liver Oil.



For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

—o—

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artificial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

For sale by all Druggists.

THE MONTREAL SAW WORKS

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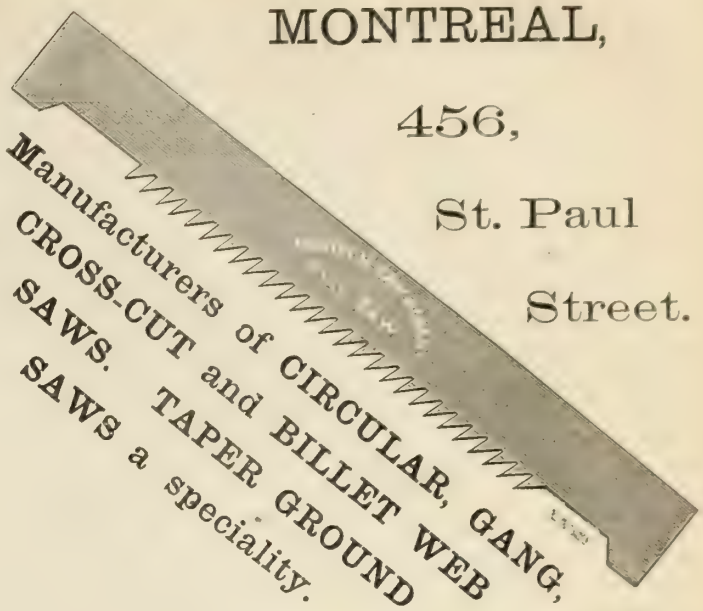

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Poleroad Tramway Cars

Will Carry 2,000 Feet of Hardwood Lumber per Load

Drawn with one span of horses, either summer or winter, on Round Pole Roads, which are cheap and speedily built.

The woodwork of the Car can be built by any handy man in a couple of days. The undersigned supply the ironwork complete, including bolts and washers and a diagram of car.

The wheels are adjustable on its axles to accommodate itself to any bend in the pole. The weight of ironwork is 2,250 lbs. Price on application to

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ST. THOMAS, Ont.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills.

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HARDWARE MERCHANT,

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LUMBERING SUPPLIES.

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FILES and RASPS

HAND CUT FILES made from the Best Refined English Cast Steel and *Warranted Equal* in every respect to the best English *brands.*

NEW FILES neatly put up in labelled boxes for the trade; to whom *bottom figures* will be quoted.

Old and Worn-out Files *re-ground* and *re-cut* by hand, and made equal to the New File for use, at prices that will effect a great saving to all consumers of Files

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Send at once for **Illustrated Pamphlet, giving all information, free.** Address

VOLTAIC BELT CO.,

6L6 MARSHALL, MICH.

OUR PENCILS.

WHERE THE MANUFACTURERS, FABER & CO., GET THEIR CEDAR.

Cedar Keys is altogether a very lovely group of islands, numbering between thirty and forty isles, often very minute, and the largest not over a mile long. The principal ones are Atsena Otie, Cedar, Piney Point, and Way, Snake and Seahorse Keys, which inclose the port. Seahorse Key lies at the entrance; and is ninety feet high, the loftiest land between Key West and Pensacola. It seems placed there as a breakwater, and a pedestal for the lighthouse which crowns it. It is encircled by a beautiful beach of soft, creamy sand, and is haunted by various legends. Lafitte, the smuggler, is said, with some reason, to have made this islet one of his haunts in the days of his power.

Atsena Otie, which is an Indian name, was originally inhabited by the Indians, and was the first of the group occupied by the whites. The wigwams vanished when Mr. Parsons, then a quartermaster in the army, caused a house to be erected there during the Seminole war. The timbers were brought there already fitted, as he told me. They began to erect the building in the morning, and at night he slept in it, and on the following day filled it with Government stores. A charming beach, fringed with cabbage palms and palmettoes, encircles the isle, and some picturesque residences are grouped in the centre. But Atsena Otie is also the site of the cedar mills of Faber & Co., the famous pencil manufacturer.

This firm was established in 1761, and the present head of the house, A. W. von Faber—he has been ennobled—is the great-grandson of the founder. The manufactory is at Stein, in Bavaria; agencies also exist at Vienna, Paris and London, and a very important branch establishment was founded in New York over twenty years ago, which not only manufactures the cheaper grades of pencil, but also, more recently, gold pens and pen handles of excellent quality. Five hundred different kinds of pencils are manufactured by the Fabers. Most of these depend on two materials for their construction—the lead, or graphite, which comes from the celebrated mine of Aibert, in Siberia, and the wood of the cedar tree. To many it will be a surprise to learn that all the cedar employed in pencil making comes from the State of Florida, and is shipped at Cedar Keys. The requisites in wood used for this purpose are a very fine grain, and what is rare with such wood, softness. Red cedar of the best quality possess these conditions. There are many varieties of cedar, of which two are common in the United States. Of these the white cedar, mistakenly called the cypress, is very common in Florida, and grows to a great height. The red cedar grows almost everywhere, North and South, but it is only that which is found in Florida that is available for pencil making, that which grows elsewhere being coarser, more fibrous, and more full of knots. In Florida the red cedar reaches a height of twenty-five to thirty-five feet, and is divided into the poor quality which can be made into cigar boxes and the like, and the superior sort adapted for pencils. The supply is obtained in the regions watered by the Withlacoochee, the Suwanee, and several other streams emptying into the Gulf of Mexico north and south of Cedar Keys. But as they are all too shallow for ships of large size, the cedar, after being felled in the forests, is hewn into square logs, somewhat larger than railroad ties, and taken to Cedar Keys in flat-bottomed schooner-rigged droghers, decked over, and of light draught. At Cedar Keys the logs are made into rafts, and floated out to ships which anchor off Seahorse Key when drawing too much water to enter the port. The Fabers control over half the supply, and ship all the pencil boards which go to Europe, whether for their own or other pencil factories. These boards are all sawn at the mill of Atsena Otie by a very delicate process. They are the exact length of the pencil, and of two thicknesses—one for the groove into which the graphite is laid, and the other to lay over it and complete the pencil. The amount shipped annually averages one million cubic feet, trimmed and ready to be made into pencils and boxes.

It is evident that this traffic gives a bustling air of thrift to Cedar Keys, quite unusual in a Southern sea-board town. The negroes employed in it are a shrewd, comical class. I was particularly interested in one old fellow who was mending his mainsail, and singing Methodist hymns to himself on a pleasant spring morning. His children played in the sand and chatted to him the while, and his nondescript hat near by on the beach was more picturesque than elegant.

Besides the cedar traffic, Cedar Keys is every year gaining in importance as a distributing port for the turtles, the oysters, the oranges, and the vegetables found on the west coast, or grown at Tampa or Silver Spring. The turtles alone are worth $10,000 annually. As a railroad and steamboat terminus, and the starting point of a proposed fast mail line to Cuba, which would meet a certain demand, it seems to have the promise of a growing prosperity. A few good hotels would also make it an attractive resort in winter, as it is healthy at that season. The Indian or shell mounds of Cedar Keys should also be mentioned as objects of much scientific interest. Composed entirely of oyster shells, and containing remains of pottery, rising to a height of from thirty to sixty feet, and overgrown by live-oaks or vines and palmettoes, the question of their origin will long continue a problem to the geologist or archæologist.

FINE FINISHING.

More attention is now being given throughout the country to the artistic finishing of houses and fine business structures, and more expert carving is done for the purposes named, the appearances indicate, than in the manufacture of furniture, which industry for a long time laid claim upon the greater share of this class of mechanical talent. The reasons for this may not be fully self-evident or patent, but it would seem that it is largely because the real value of hardwood in this direction had never been fully realized or understood in this country, and because, also, the real high art in decorative architecture is scarcely native to American ingenuity and talent, which is famous in other ways, since there are oriental splendors in building and interior display in the palace-like habitations of many a pagan, or uncivilized native, which would never have been deemed possible of execution by our own designers, however artistic their eye, or however deft their touch. Processes and appliances for producing excellent results are known to many European workmen, in whose breasts the secret of such achievements is firmly locked. During the past few years many of these expert operatives in wood-carving have been forced to the shores of America, as it were, through the unsatisfactory state of affairs in their own countries, and their superior abilities have begun manifesting themselves in the wood manufacturing industry of this country, and, latterly, to a very marked extent, so that a *renaissance* in wood-carving may be fairly said to have resulted. The importation and employment of this class of talent led to a responsive sentiment in the community, or such channels of it as evidenced a sufficiently refined or artistic taste to appreciate and encourage a sensible and utilitarian form of art, which was experiencing an important enhancement of its excellence, and now quite a pronounced stimulus has been given the industry of wood-carving, more particularly for house finishing.

The *Scientific American* says regarding wood-carving in New York, that a marked and rapid increase has been made during the past 10 years in the demand for fine wood-carving, and with it a corresponding increase in the number of skilled workmen employed. Ten years ago the 100 skilled wood-carvers in the city were almost wholly engaged upon fine furniture. Now nearly 600 carvers are at work for two firms, and as many as a 1,000 accomplished artists find employment in the city, the larger part of them upon the interior decoration of houses.

A writer for the *Evening Post*, who has lately investigated this (for them) new industry, says that the rapid immigration of skilled carvers from Europe has had the effect of reducing wages considerably, yet they are still good. The very finest workmen, especially those in possession of some secret processes of doing difficult work, receive wages as high as $8 a day. The average pay of good wood-carvers is from $4 to $5 a day. The process of ebonizing cherry wood, for instance, used by one of the firms visited, is a secret known only to the workman who does it. Even the members of the firm have no right to ask what his secret is. The fact that he can get a finer, more ebony-like surface than any other man gives him a high value at once. Although the use of mechanical devices for carving wood are so much disliked by the best workmen that sandpaper is forbidden, machinery is now used to cut away the rough parts of a bit of carving. A peculiar tool driven by steam power cats out the wood wherever it goes, and thus a skillful man blocks out in a rough way as much work in a day as 20 men could have done formerly.

The delicacy and lightness of wood-carving, and the pay which good workmen receive for it, have already attracted many American apprentices, who, untrammeled by union rules, are making rapid headway, and promise to surpass the foreigners.—*Northwestern Lumberman.*

LOGGING RAILROADS.

The *Northwestern Lumberman*, in answer to a correspondent, gives the following information regarding logging railroads :—

It is now conceded that the primitive method of logging with sleds on snow or iced tracks is too costly and inconvenient for modern views. Sledding, necessarily practicable only in the winter months, is liable to failure with the increasing changeableness of the seasons, and is interrupted at times by a scarcity of snow and at others by an over-abundance. Other devices have been used for hauling logs, and on a small scale it is practicable to use poleroads and animal power; there have also been constructed for use on wooden or iron rails various steam machines of different degrees of badness, which, by reason of defective design or construction, go to pieces after one or two years of patching and tinkering, and then give place to properly built light locomotives.

The best gauge of track for logging railroads is 36 inches, unless connection is to be made with a main line. The standard 56½ inches gauge is entirely practicable and costs very little more to build, except when heavier cars and rails are needed. In the south the 60 inch gauge is used. Old gauges are to be avoided, as the rolling stock is almost unsalable. The gauge is the space in the clear between the rails.

The best rail is T iron, of the weight demanded by the amount of business to be done. Rails from sixteen to thirty pounds weight are commonly used. The best pattern of rail has a wide head. A lighter weight of rail may be used if laid on a stringer, in which case reversed point spikes are used, and the stringers should be tied across by flat pieces let in on their top faces to prevent rolling or spreading. Wooden rails can be used, and if the labor of keeping them renewed is not objected to, are desirable because cheap, but are only fit for a small business, or for temporary use on branches. A locomotive can only haul about half as much on wood as on iron, and snow and ice are hard to clear off a wood rail.

The cost of track for a logging railroad depends very much on the location and the character of the country traversed. The following estimate may serve as a guide for the cost per mile of a light road with 16-pound rail, suitable for a six-ton locomotive on four driving wheels :

Rails, 16 lbs per yard, 25 and one-seventh tons, at $60	$1,508.57
Cross ties, two feet between centres, 2,640 at 10 cents	264.00
Spikes, four to each tie, 3×⅜, 1,710 lbs at 4 cents	68.40
Splices, allowing rails 24 feet long, 440 joints, at 25 cents	110.00
	$1,950.97
Allow for clearing, grubbing, track-laying, timber for cribbing, &c., $500 to $1,000 say	750.00
Total	$2,700.97

For a road with 24-pound rail, suitable for an eight-ton locomotive on four drivers :—

Rails, 24 lbs per yard, 38 and nine-fifty-sixth tons, at $55	$2,098.84
Cross-ties, two feet between centre, 2,640 at 10 cents	264.00
Spikes, four to each tie, 4×½, 3,520 lbs, at 3½ cents	123.20
Splices, allowing rails 28 feet long, 378 joints, at 28 cents	105.84
	$2,591.88
Allow for clearing, grubbing, track-laying, etc.	850.00
Total	$3,441.88

For a road with 30-pound rail, suitable for a locomotive weighing about twelve tons, on four drivers :—

Rails, 30 lbs per yard, 47 and one-seventh tons at $55	$2,592.80
Cross-ties, two feet between centres, 2,640 at 12 cents	316.80
Spikes, 4½×½, 3,960 pounds at 3½ cents	138.60
Splices, allowing rails 28 feet long, 378 joints, at 30 cents	113.40
	$3,161.60
Allow for clearing, grubbing, track-laying, etc.	1,000.00
Total	$4,161 60

The cost of hauling logs by light locomotives on iron rail, including interest and depreciation and all expenses, varies from about 30 cents to 60 cents per 1,000 feet, according to the length and general character of the road, and the amount of business. The daily cost of operating one locomotive, including the wages of an engineer and the cost of fuel, oil and repairs, is not far from $5 per day. No fireman is required on most logging railroads. The cars used may have four or eight wheels, the latter being preferable, and for hauling long timber, two four wheel truck, with an extension bar, are used for each length of logs. There should be enough cars for two trains, one to be loading while the other is on the road, so that the locomotive need not wait for cars to be loaded. The unloading can be done so quickly as to cause no delay.

A logging railroad often pays for itself in less than a year. In case of a failure in sledding or of windfall or fire, a logging railroad can be put in and the logs saved. When prices are high the output can be doubled without additional investment by running 24 hours per day; or when prices are low and operations suspended, all expenses are stopped. The entire outlay for a steam logging railway with iron rails, is generally about 50 cents for each 1,000 feet of lumber readily reached by it. When the tract is cut off the road may be moved to another tract at slight expense. Tracts that were considered of little value and inaccessible under the old style of logging, are utilized and made a more profitable investment than lands nearer streams that are held at higher figures. Logging railroads solve the problem also of the profitable production of lumber where the cost of moving logs as the haul increases in length with each season's cut, since logs can be hauled 10 to 15 miles by locomotives cheaper than they can be sledded for short distances. This low cost of transportation enables poorer grades, which would otherwise be left to rot in the woods, to be marketed at a good margin.

The best locomotive for logging roads must be of simple design; strongly and durably made with a liberal use of steel and wrought iron, and of such construction as to be quickly and cheaply repaired, which is attained only by a thorough system of duplicate parts requiring a heavy outlay by the builder. There is no service requiring reliable, well-constructed and properly designed locomotives, more than is required for the severe work of logging railroads, and no place where a cheap locomotive is a more costly investment. It needs no argument to demonstrate the folly of saving a few hundred dollars in a motive power, and by so doing run a constant risk of breakdowns and of enforced idleness of a camp of men, and of failure to fill contracts.

A Paper House.

In the Sydney Exhibition there is a house built and furnished throughout from paper. The structure is one storey high, and its skeleton is made of wood. The exterior is moulded in cartonpierre, whilst the exterior is covered with the same material, being plain on the floor forming splendid arabesques on the walls, and moulded in imitation of plaster on the ceilings. The doors, cupboards, and shelves are of the same material, whilst the entire furniture, including chandeliers and a stove, in which a fire can be lighted, is made of papier mache. The carpets and curtains are of paper, and there is a bedroom in which there is not only a large bed made of papier mache, but there are also blankets, sheets, quilts, and female underclothing, dresses, and bonnets, in the latest styles, composed solely of cartonpate. It is proposed to give a series of banquets in this building, in which the plates, dishes, knives, forks, and glasses will all be of paper.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

PROFIT OF TREE PLANTING.

Professor Sargeant, of the Harvard arboretum, probably the best authority in this country on the subject, estimates that the profit on a plantation of 10 acres of larch trees, at the end of 50 years, will average 12 per cent. per annum for the whole time on the capital expended. The philosophy of this is apparent. There is little outlay upon a tree crop beyond the first cost of planting, while day by day the silent forces of nature go on adding to its value, whether the owner works or idles. Enough is positively known to furnish the strongest incentive to tree planting from the practical point of view as well as from physical and sanitary considerations. The west and northwest need more attention to this enterprise, often as its advantages have been urged upon them. Such a want ought not to continue, now that it is an assured fact that no other crop is so remunerative, secured with so little trouble, and subject to so few risks from destructive agencies, as the tree crop. The industry is scarcely yet out of its infancy. With due care given to its development by the state, the interest of individual farmers will become more active and more intelligent. A school of forestry will educate the people by that iteration of precept upon precept which is necessary to the acceptance of the plainest truth. But when once it is thoroughly understood that tree planting is not a matter of sentimental care for the future only, but of hard cash for the present, it will be welcomed and recognized as one of the legitimate branches of husbandry.

WASTE NOT, WANT NOT.

We have on many occasions advocated the establishment of a Bureau of Forestry, and as time goes on the necessity for such a Government department becomes more apparent. Canada is wasting her forest resources to such an extent that in a few years they will be exhausted. Living in the midst of the forest operations—surrounded as we are by logs, posts and lumber—we know more of the forest resources of Canada that those journals published in localities where lumbering is extinct, and we say deliberately that the waste now going on is criminal. To one matter we wish to draw particular attention. A demand has arisen in England for Canadian hemlock bark, and efforts are being made to supply the demand. Now it must be noted that the present supply of hemlock bark is very limited, and is not more than sufficient to supply our own purposes. It takes about 150 years to replace a tree cut for its bark. Up in the north country, about 45 years ago, an insect pest passed through the woods and killed every hemlock tree in a district extending over a hundred townships. The only hemlock there now has grown since that visitation, and is just large enough for railway ties. Therefore it is clear that any additional demand for hemlock trees would speedily make the hemlock an extinct tree in the northern district. "Protection" might very properly be applied in this direction, and a department of forestry would do important national service.—*Bobcaygeon Independent.*

Nothing New Under the Sun.

Mr. James Bell, of Ullin, Ill., writes :—In the *Northwestern Lumberman* of March 27, I notice that logging roads and locomotives for hauling logs are put down as recent inventions. In the winter of 1856-7 there was built here a tramroad on which mules and oxen were used. In 1862 a locomotive was put on which was worn out, and the discarded machine was replaced by another, which was nearly worn out in the service.

A New Catechism in Drayton.

Q.—What is rheumatism ?

A.—Rheumatism is a humorous sensation that causes men to rub their joints with St. Jacobs Oil, play practical jokes, throw things around, wear crutches and stay indoors, swathed in red flannel.—*Drayton (C.) New Era.*

Q.—What is St. Jacobs Oil ?

A.—A peculiar substance of a very penetrating nature, which causes rheumatism to leave the system astonishingly quick,—insuring evenness of temper thereby, and ability to do one's work satisfactorily. It banishes crutches, retires flannels, produces happiness, and brings us down to a serene old age without the martyrdom of pain.—*Exchange.*

BLACK BIRCH.

Black birch is one of the woods which is crowding into the shoes of walnut, which are sure to be vacated before many more years of consumption. It is coming rapidly into favor, and is an excellent substitute for walnut. It is clear grained and handsome, and can be readily given an exact walnut stain. It is easily worked and suitable to nearly all the purposes to which black walnut is at present applied. Birch is about the same color as cherry, but it is immensely cheaper and far more plentiful. Besides the fact of its staining so as to resemble walnut, it is susceptible of a beautiful polish equal to any wood now used in the manufacture of furniture. In the forests throughout Ontario birch grows in abundance, especially if the soil is not too boggy. There is a great difference in the wood of different sections. Where the land is high the wood is firm and clear, but if the land is low and wet the wood has a tendency to be soft and of a bluish color. In all the northern regions it can be found in great abundance, and as the trees grow to such great size, little trouble is experienced in procuring large quantities.—*Northwestern Lumberman.*

ARBOR DAY.

Mr. Joly has given notice in the Legisative Assembly of Quebec that he will move that, whereas the rewooding of denuded lands is one of the questions of the day, not only in the old countries of Europe but also in the United States of America, and in a great porportion of the British and French Colonies, and is worthy of the serious consideration of this House. Whereas without incurring any expense whatever, there is an easy means of awakening public interest, and gradually attracting the attention of the people to the importance of rewooding our country, a means which has already been productive of extraordinary results in the neighboring States—that is to set apart one day in the year fixed by proclamation of the Governor for planting forest trees, which day is called in the United States "Arbor day," be it resolved that it would be desirable to follow this example, thereby making the rewooding of our lands an undertaking of public utility, and, being invested with the sanction of authority, would cause it to gradually become one of our national institutions.

E. HALL, of Detroit, Mich., is going extensively into lumber operations in this vicinity. His intentions are to construct a railway and put in some 30,000,000 feet of logs on the Tobacco River, some four miles south of Farwell. A dam is being constructed for the purpose of floating out the log. Extensive arrangements are likewise being made through many parts of the lumber woods north for summer logging.

BRIGHT'S DISEASE, DIABETES.—Beware of the stuff that pretends to cure these diseases or other serious Kidney, Urinry or Liver diseases, as they only relieve for a time and make you ten times worse afterwards, but rely on Hop Bitters, the only remedy that will surely and permanently cure you. It destroys and removes the cause of disease so effectually that it never returns.

A healthy man never things of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

WHY ARE WE BILIOUS?—Why do we have sick headache? Why do we feel weak and tried with little or no appetite? Why that coating of the tongue and that bad taste of the mouth? Your liver is out of order, and does not do its work as nature designs. *Baxter Mandrake Bitters* act directly on the liver, stomach and bowels, and will relieve you at once. They are the best medicine known for costiveness, which is the starting point of ninety-nine cases out of a hundred of all the complaints that human flesh is heir to.

THE VITAL FORCES are speedily renewed by Mack's Magnetic Medicine, the great brain and nerve food, it is the best and cheapest medicine ever discovered. See advertisement in another column.

THE first triumvirate, fromed 59 B. C. consisted of Cæsar, Pompey and Crassus, and the three leading business pens of Esterbrook's make are the Falcon, Bank and Easy Writer.

Simcoe House,
CORNER FRONT and SIMCOE STS.
TORONTO, ONT.
Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms.
The Most Convenient House to all Trains.
1L21 GREEN & SON, Proprietor.

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RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
Every accommodation for Commercial and LUMBERMEN.
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LUMBER MERCHANTS
And Shipping Agents.
OSWEGO, N. Y. 1Ltf

CHOPPING AXES
(Made to Order and on hand.)
MILL PICKS DRESSED in a first-class style. Those shipped by rail will be returned promptly.
Lance Tooth Saws Gummed. AXES WARRANTED. 3L24
W. HERLIHEY, Lindsay.

MACK'S MAGNETIC MEDICINE.

Is a Sure, Prompt and Effectual Remedy for *Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Spermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs.* The experience of thousands proves it an INVALUABLE REMEDY. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is *the cheapest and best.* Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at 50 cts, per box, or 12 for $5, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO, Windsor, Ont,
Sold by all Druggists in Canada.

N. H. DOWNS' Vegetable Balsamic ELIXIR!

This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:
Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,
and every species of oppression of the Chest and Lungs. In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that
CONSUMPTION
is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry: then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all morbid irritations and inflammation from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,
IT HEALS THE ULCERATED SURFACES
and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent articles, which are of so drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the cause, generally destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonery diseases. Price 25cts. and $1 per bottle. Sold everywhere.
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J. DAVIES & Co.
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Sells all sort of Lumber on C[illegible] Advances on Consignments. Prices given on application. Whole Stocks disposed on very low Com[illegible] 1L11

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Dealers in all [illegible]
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All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward. 1yL5

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IMPORTERS AND DEALERS IN
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RUBBER HOSE, STEAM PACKING,
LUBRICATING OILS, COTTON WASTE
Wrought Iron Pipe and Fittings,
And all Articles used in the Application of Steam to Machinery.
No. 41 Dock Street, St. John, N. B.
(SMALL'S BLOCK.)
N.B.—Estimates for Steam and Hot Water Heating Apparatus furnished on application. All work Warranted. 1L15

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JOSEPH McAFEE,
(LATE ANGUS MCAFEE.)
Warehouse, Main St., St. John, N.B.
AGRICULTURAL IMPLEMENTS.
MANUFACTURER OF
Cooking, Ship, Parlor & Office Stoves
MILL CASTINGS
Ship Windlasses, Capstans, and Ship Castings of all kinds,
(MADE TO ORDER.)
Power Capstans, Patent Ship Pumps
With Copper Chambers. 1L15
Lead Scuppers & Water Closets & all goods in my line for Ships' use.
Work done to Order with Quick Despatch.

GRATEFUL—COMFORTING.
EPPS'S COCOA
BREAKFAST.
"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*
Made simply with boiling water or milk. Sold in packets and tins only (½-lb. and lb.) labelled
JAMES EPPS & CO., Homœopathic Chemists,
London England. 1L14

THE CANADA
LUMBERMAN
DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. JUNE 1, 1882.

THERE was a sale of 1,000,000 feet of lumber made in Bay City, Mich., lately, to eastern parties at $25 per M straight measure.

IN the United States there are 1,942 establishments for the manufacture of agricultural implements. They use $5,791,916 worth of timber a year.

THE extensive Peterborough lumbering firm of Irwin & Boyd has been dissolved by mutual consent, Mr. G. Boyd retiring and Mr. J. M. Irwin continuing the business.

RATHBUN & SONS' mill and lumber yard, Deseronto, is now lighted by electricity. One light, 75 feet high, is a splendid beacon for mariners navigating the Bay of Quinte.

ALEX. MCLAREN, of Osceola, has ordered a complete outfit of machinery, from Morrison Bros., of Toronto, for his new stave and heading factory now in course of erection at that place.

A TELEGRAM from Sprinlake, Mich., dated May 26th, says Sisson & Tilley's mill yard was burned yesterday. It contained seven million feet of lumber, valued at $100,000, belonging to Rathbun & Co., of Chicago. This firm lost nine million feet here last fall.

THE *Moniteur du Commerce* gives a long description of the manufacture of hats, bonnets and other articles from woven wood, as carried on at Ehrenberg, in Austria, where it has acquired large proportions. It strongly advocates the introduction of this industry in Canada.

TWO ash knots, weighing 1,150 and 1,490 pounds, were recently shipped to New York. They are steamed, which softens them and develops their color, and then used in exceptionally fine veneering. Persons who are experts in judging what knots are of value, make considerable by going about looking for them. These two were from Caledonia, N.Y.

THE *Northwestern Lumberman*, of Chicago, appears in a new dress and generally improved appearance. The headings are especially well designed. As if to show that there is no limit to its enterprise, the *Northwestern Lumberman* has just published a special Chicago number, which is replete with information for the trade. When we state that it extends to 85 pages, and that some of the full page advertisements are printed in three colours, it may be imagined that this is a feat in journalism.

CAPT. MCDOUGAL, superintendent of the Northern Pacific docks, writes that Duluth will be a second Saginaw in the lumber trade. There are now eight mills in construction, which will cut about one hundred million feet a year. He prophecies that this cut will be doubled next year.

IN 1864 an Indiana man bought a black walnut tree for $1, and in a few years sold it for $65 to a man who let it go to a Cincinnati lumber dealer for $700. A New Yorker took it off the Cincinnatian's hands for $2,200, and shaved it into $27,000 worth of veneering, for which he took the cash.

THE value of shingles exported from Brockville, Kingston and Prescott last year was $23,840, against $10,440 in 1880 and $8,152 in 1879. The value of the different kinds of lumber exported from the same ports in the same period was as follows:—In 1879, $262,517, in 1880, $474,436, and in 1881, $722,256.

THE Eau Claire, Wis., Lumber Company, it is stated, has contracted to furnish to Close Brothers & Co. lumber for the building of 100 houses, an equal number of barns, and an equal number of granaries, all to be put up in Iowa, where the company is establishing a colony on a large tract of land owned by it in that state.

THE *Northwestern Lumberman* says:—"It is true that a portion of the immigration wave is tending toward Manitoba and other parts of the Canadian dominion, but as that section is forced to draw mainly upon the lumber resources of the Northwest, the result largely affects commerce and industry through the North and West."

A COMPANY is talked of at East Saginaw, Mich., with a capital of $50,000, for the purpose of erecting and operating a manufactory of patent panels, to be made of Michigan basswood. The same parties run a factory of the same kind at Defiance, Ohio, and it is proposed to remove to East Saginaw. The panels are used for carriages, cutters and cars, etc.

THE extract works at Trout Run, Lycoming county, Pa., consume 5,000 to 6,000 cords of hemlock bark annually, and produce nearly 5,000 barrels of extract. Much of this extract is shipped to Europe for tanning leather. Large orders are now being filled for Liverpool and Glasgow. The company now pay $6 a cord for bark, an advance of $1 a cord over last year's price.

S. BABCOCK & Co. are putting in a large Curran & Wolff dry kiln at Manistee, Mich., for the purpose of drying siding. It will be the first dry kiln in the place, and will hold 110,000 feet, and turn out from 20,000 to 40,000 feet a day. This undertaking leads to the question, Why cannot all boards and strips be dried at the place of manufacture? The fuel is on the spot in the form of refuse, and is often sacrificed in the fire that is unquenchable, to no purpose.

BLACK walnut can now be manufactured very cheaply. One part of walnut peel extract is mixed with six parts of water, and the wood is coated with the solution. When the material is about half dry a solution of bichromate of potash with water is rubbed on it, and then your walnut is ready. Furniture dealers have been known to make excellent walnut out of very poor pine, but the difference was slightly perceptible; however, this method is said to defy detection.

THE *Timber Trades Journal*, of May 13th, says:—Caution seems still to govern the import timber trade of London, if the arrivals of wood laden vessels are any index of the spirit of the trade, as only 36 vessels were reported since our last number up to the 10th inst. inclusive; 16 were steamers, mostly from Northern Europe, two only were from America, with general cargoes, and only part of timber, chiefly in the shape of staves, hoops and joinery, with some furniture woods. Altogether the import trade seems rather subsiding in this market for the moment.

THE *Lumberman's Gazette* says that Duluth is fast gaining prominence as one of the leading lumber manufacturing towns, and several new mills are going up. Something like 110,000,000 feet of logs will be cut into lumber at that point the present season. At several shore towns east of Duluth there are mills in course of erection or contemplated, and at no distant day the amount of lumber cut in the Lake Superior district will be no minor factor of the entire lumber business of the northwest.

THE Canton, N.Y., University is among the most vigorously interested educational institute giving attention to the subject of tree-planting. Lately 100 trees were planted on the grounds of the institution, and within the 12 years of its existence, about 1,000 trees have been set out, a fair proportion of which are yet living. In fact the ladies of the University were so zealous and enterprising in their laudable cause that they stole a march on their sleepy masculine coworkers and planted their proportion of the trees before the male members had finished digging out their eyes.

ROBERT HENRY, a prominent lumberman, formerly of the township of King, and latterly of Mulmur and Manitoulin Island, lost his life through the burning of the steamer *Manitoulin*, near Manitowaning, on Thursday, 18th inst. Deceased, who was in the forty-first year of his age, was cut down in the prime of his manhood and earnest usefulness, and his death has added another to the many victims of oft-recurring steamboat disasters. He was a pioneer in the settlement of the island, where he had extensive lumbering and milling interests. Mr. Henry's body has been recovered, and will be brought to his late residence, No. 99 Bloor street, Toronto. Should it arrive, as is expected, to-day, the funeral will take place from the above address on Tuesday, 23rd inst., at two o'clock in the afternoon.

PRESERVATION OF WOOD.

Dr. Joseph Jones, of New Orleans, has, after an extended series of experiments, inaugurated eighteen years ago, in 1864, succeeded in developing a method of preserving wood from decay for great periods of time, and even for centuries. The first series of experiments related to the preservation of animal structures; and in the museum of the medical department of the University of Louisiana are preserved in the open air the most delicate and destructible animal tissues, and entire animals, apparently as fresh as at the moment of death.

The second series of experiments related to the arrest of decomposition in diseased and gangrenous ulcers, cancers, and gunshot wounds, and the results were none the less striking and satisfactory.

The third series of experiments related to the preservation of wood from decay and the destructive action of marine animals.

The process, as finally developed and perfected by Prof. Jones, consists in saturating wood with certain bituminous, resinous, and antiseptic substances and compounds. The sap and moisture of the wood are transformed into steam, and the albuminous constituents coagulated by heat, and the wood thus treated is immediately plunged into a boiling solution, the most important ingredients of which are asphalt or solid bitumen and carbolic acid. The combination may be varied according to the age and density of the wood. As the preservative liquid and wood cools the vapor is condensed and the solution of asphalt is driven into the pores and also penetrates the wood by imbibition. The solvent of the asphalt rapidly evaporates from the surface of the wood after it is removed from the preservative fluid, leaving a smooth, polished surface, impervious to moisture and water. The antiseptic substances are thus locked up within the fibres of the wood. Thus, if it be desired to subject a railroad bridge to this process, the individual portions, after they have been completed, are first heated in order to drive out all the moisture, and then plunged into the solution of asphalt; and after remaining from two to twelve hours, are removed, and each individual part is protected by a complete coating of asphalt, impervious to water, and itself one of the most powerful of wood preservers. When the bridge is erected every portion of it presents a coated surface, and the whole structure presents the appearance of having been carefully painted by hand with durable black varnish.

The saving of expense alone in this mode of painting an entire bridge simply by plunging its component parts into a preservative fluid, it is claimed, will more than equal the expense of the materials used. Wood may be subjected to the hot solution of asphalt without preliminary heating.

A drying room for the wood and a tank heated by steam for the preservative liquid are the only forms of apparatus needed. Solid bitumen or asphalt is found in most countries of the globe; but it is to the West Indies that the United States must look for inexhaustible supplies.—*New Orleans Democrat.*

ECONOMIZING OUR FORESTS.

At the meeting of the Royal Canadian Society, in the scientific section, a paper was read by Mr. Wm. Saunders, of London, Ont., on "The Importance of Economizing and Preserving our Forests," in which he referred to the importance of forests in providing shelter from storms, regulating the temperature, equalizing violent alternations of heat and cold, and on the manner in which the humidity of the atmosphere is equalized and conserved. Reference was also made to the importance of forests in influencing the rainfall and purifying the soil and atmosphere. He alluded also to the forest policy of Germany as showing the possibility of a country, by proper forest regulations and sufficient forest area, growing a sufficient supply of timber for the use of the people. He also called attention to the needless waste of timber from the carelessness of the lumberer and the wanton destruction of vast quantities by forest fires. In conclusion, he suggested that more stringent rules were needed to remedy these evils, urging also that more attention should be given to the replanting of the denuded districts.

The President called the attention of the meeting to the importance of the subjects, and remarks in connection with the paper were made by Professor Macoun and Dr. Lawson.

It was afterwards moved by Principal Dawson, seconded by Dr. Lawson, that at the general session to-morrow the attention of the society be directed to the subject of the preservation and planting of forests by public and private means as an important object to be promoted in connection with this society and with the International Forestry Association.

LUMBERING ON THE PENOBSCOT.

The Portland *Commercial* says the Penobscot lumbermen are anxious for rain. At some points driving has been abandoned on account of low water. The first Mattawamkeag drives of 15.000,000 feet will be in the boom, it is thought, in a few days. Mr. J. W. Palmer's cut, made in the vicinity of the "Gulf," amounts to about 10,000,000 feet, but the two drives, forward and rear, contain over 13.000,000 feet, the extra three millions being other operators' logs, which Mr. Palmer has undertaken to drive. There are on Pleasant river four large dams, and Mr. Palmer has so utilized the water from their ponds that the forward drive of 7,000,000 feet of his own and other logs will reach the Penobscot on Thursday. The rear drive consists of about 6,000,000 feet, and the logs are now being sluiced through the Gulf, with a good prospect of getting them through the main river, and almost a surety of geting 2,000,000 feet of them to market. There is a crew of fifty men on the forward drive, while 150 red shirters are trying to get the rear through.

IMPROVEMENTS AT DESERONTO.

The Kingston *Whig* has the following from Deseronto, formerly Mill Point:—The Bay of Quinte R. R. Co. are extending their line at Deseronto eastward to Unger's Island, along the bay shore. We understand the company intend to start some new industries at the terminus. The company entered into an agreement with the G. T. R. Co. to furnish 200 carloads of freight the first year, but this contract

has been already filled. The above amount was furnished in less than three months, a really encouraging fact to the stockholders of the road. The cedar mill at Deseronto will be a gigantic structure when completed. The building is 80×100 feet, part of it being two storeys in height. On the upper flat there are two saws for the manufacture of ties and field posts. The lower flat will be principally used for cutting large timber and shingle bolts. Adjoining this building is the shingle mill, which is being supplied with two double and two single machines, and has a capacity of about 75,000 per day. It will be in operation by the first of June.

CUTTING A CANAL.

A lease has been given to Monroe, Clay & Co., of Bainbridge, Ga., for land on Dog Island, Flanklin county, near Carabelle, where they propose building wharves where foreign vessels chartered by them can unload their ballast. This company is engaged in cutting and hewing square timber on Flint river, in Georgia, where they have a large force at work. This timber is rafted down the Flint and Apalachicola rivers, through St. George's Sound, to the cove in Carabelle harbor, where it goes on board the ships. Most of it is sold on European account. The contractors labor under great disadvantage in bringing their rafts through the sound. This, they think, can be avoided by a cut off from the Apalachicola river between Iola and Bristol, striking the headwaters of Carabelle, New river, or Toloye creek. That a canal in that direction will ultimately be cut is a fixed fact, and when opened it will be of great advantage to the Carabelle people.

LARGE ARRIVALS OF LUMBER.

The Montreal *Gazette*, of May 20th, says:—The arrivals of lumber and deals from Ottawa during the past week have been considerable, and from ports between here and Quebec the receipts of spruce and common pine have been quite liberal. The demand from the States, referred to by us last week, continues, several lots of hardwood having been purchased for New Hampshire and Massachusetts, at current prices. Among the sales were one or two lots of ash at $20 to $25, and a lot of cherry at $60 per M feet, f. o. c. at Point St. Charles. Yesterday several carloads of thin pine were purchased for Winnipeg at from $12 up to $25 per M feet, as to grade. There is also a good local demand. Advices from the Ottawa district state that rain is sadly needed in order to get out the logs in some of the small streams tributary to the Ottawa River.

Russian Trade With Australia.

A statement has appeared in St. Petersburg papers, speaking in jubilant terms of the fact that the well-known mercantile firm of Carl Graap has chartered two foreign sailing vessels to carry sawn timber from Cronstadt to Australia. The event is considered to be the more important as the vessel will be the first to sail direct from Cronstadt to Australia. The St. Petersburg *Herald* regards this beginning as of "enormous importance" to the commercial world of the north of Russia. At the same time, whilst it may not be of such great importance, it is a new departure on a small scale. —*Newcastle Chronicle.*

Timber Limits for Sale.

I offer Timber Limits Nos. 94, 102, 144, 145, 157, 163, 176 and 182 on the North Shore of Georgian Bay, for sale either "en bloc" or in single Townships of 36 square miles each.

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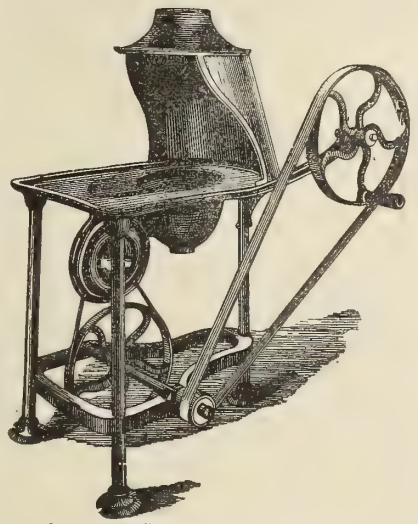

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TRENT NAVIGATION.

FENELON FALLS, BUCKHORN RAPIDS AND BURLEIGH CANALS.

NOTICE TO CONTRACTORS.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Trent Navigation," will be received at this office until the arrival of the Eastern and Western Mails on WEDNESDAY, THE FIFTH DAY OF JULY NEXT, for the construction of two Lift Locks, Bridge Piers and other works at Fenelon Falls; also, the construction of a Lock at Buckhorn Rapids, and for the construction of three Locks, a Dam and Bridge Piers at Burleigh Falls.

The works at each of these places will be let separately.

Maps of the respective localities, together with plans and specifications of the works, can be seen at this office on and after WEDNESDAY, THE TWENTY-FIRST DAY OF JUNE NEXT, where printed forms of Tender can be obtained. A like class of information relative to the works at Fenelon Falls will be furnished at that place, and for those at Buckhorn and Burleigh, information may be obtained at the resident Engineer's office, Peterborough.

Contractors are requested to bear in mind that Tenders for the different works must be accompanied by an accepted bank cheque, as follows:—

For the Fenelon Falls work.....$1,000
" Buckhorn Rapids work..... 500
" Burleigh Falls work..... 1,500

And that these respective amounts shall be forfeited if the party tendering declines entering into contract for the works at the rates and prices submitted, subject to the conditions and terms stated in the specifications.

The cheques thus sent in will be returned to the different parties whose tenders are not accepted.

This Department does not, however, bind itself to accept the lowest or any tender.

By order,
F. BRAUN,
Secretary.

Department of Railways and Canals,
Ottawa, 22nd May, 1882. d127-3L11

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NOTICE TO CONTRACTORS.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for the MURRAY CANAL. will be received at this office until the arrival of the eastern and western mails on TUESDAY, THE TWENTY-SEVENTH DAY OF JUNE NEXT, for the formation of a Canal to connect the head waters of the Bay of Quinte with Presqu'ile Harbour, Lake Ontario.

A map of the locality, together with the plans and specifications of the works, can be seen at this office and at Brighton, on and after THURSDAY, THE EIGHTH DAY OF JUNE NEXT, where printed forms of tender can be obtained.

Contractors are requested to bear in mind that an accepted bank cheque for the sum of $3,000 must accompany each tender, which sum shall be forfeited, if the party tendering declines to enter into contract for the execution of the works at the rates and prices submitted, subject to the conditions and on the terms stated in the specification.

The cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

This department does not, however, bind itself to accept the lowest or any tender.

By order,
F. BRAUN,
Secretary.

Dept. of Railways and Canals,
Ottawa, May 22nd, 1882. d125-2aw

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The subscriber offers for sale the

Steam Saw & Shingle Mill

known as the "Soper" Mill, now rented to James Leishman; situated in front of the Bracebridge Wharf, Muskoka River, and within a short distance of the proposed railway.

This Mill is in first-rate order, the machinery new, and is capable of cutting 25,000 feet of lumber per day. For further particulars apply to

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It has performed a miracle in my case.

I have no unearthly noises in my head and near much better.

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THE SPRING MOVEMENT OF LUMBER AT CHICAGO.

A query has arisen in the minds of many as to why the receipt of lumber at this port has been so much greater this spring than last, while the mills at Muskegon have been forced to remain idle on account of the strike. Of the total amount of lumber received at this port from the east shore considerably more than one-third comes from Muskegon. It can be plainly seen that a cutting off of the usual supply at that point would make a vast difference in the receipts at this market under ordinary conditions. That the failure of the mills there to start up this spring has not apparently diminished arrivals since the opening of navigation is a circumstance that may well be enquired into. The bears in this market are handling the problem as if it were a matter of great significance, somehow, though how it should affect their interest, when the reason for the large receipts this season is really known, it is not so very plain to see. If the large spring receipts meant an over supply the season through, or if the bear element could make it appear that it meant that, of course such a view would tend to weaken values, and that is what the bears want to do; though they would hardly be willing to have it proved that there would be a glut of lumber in this market through the season, for that would take the starch out of the values of the stocks that they have in the yards, which was bought at pretty round figures. But it can be shown quite clearly that the supply of logs and lumber is not greater than the demand requires, unless it should unaccountably fall off during the present season. The history of the trade since last spring proves this plainly enough. We have seen that while the supply on January 1 last was 560,416,842 feet, as compared to 497,840,673 in 1881, trade was so large during the winter that the pile had been diminished on May 1 to the tune of 557,883,000, showing an increase of shipments during the four months since January 1 of 219,345,000 over the same period of the previous year. The amount of logs put in during the last winter certainly does not warrant the conclusion that there is an overstock of such vast proportions as to threaten a dangerous glut of output in the various markets during the year. So we are led to the conclusion that the heavy receipts at this port thus far during the spring do not indicate an enormous rush of an overburdened supply seeking to get into the market before the accumulating volume becomes so overwhelming that values will be crushed to a ruinous minimum. On the other hand, we can safely conclude that there is no more lumber at primary points, in stick or stack, than can be devoured by the demand, provided there is no untoward event that shall intervene to stop industry and progress, and greatly reduce the demand. Any cry of a rush of stock, and a probable accumulation in excess of the demand is but a speculative shout, designed to temporarily unhorse values, so that they can be mounted again to suit those who wish to buy in a season's supply.

What, then, is the real cause for the extraordinary receipts of lumber at this port since March 15? On May 1 they amounted to 232,934,000 feet, since January, as compared to 91,508,000 the year before the same period, an increase of 141,426,000. An explanation is primarily indicated by the fact that sales and shipments have shown proportionately as large an increase, which indicates that the rapidly depleting supply throughout the winter had stimulated early and liberal receipts. Never in the history of the trade at this point had the winter out-movement of lumber been so great. This drew down the amount on hand in the yards, and broke up assortments. Naturally there was an industrious looking around all winter for new supplies. Just as soon as a vessel could be sent out in March it was done, and lumber began to arrive. There was almost daily receipts by lake after March 15, and the stream increased in steadiness and volume from April 1 through that month.

The contrast of this year and last in regard to receipts by lake was very striking. The first arrival of a cargo in the spring of 1881 was on April 15, and on that day and the day following nine cargoes reached this port. But few came in after that till April 26, when the total receipts of lumber had reached 8,008,000 feet, the arrivals the year before on that date having aggregated 63,827,000.

Naturally, after having such a flourishing trade all winter, which reduced stocks remarkably, and broke up assortments, wholesale yard dealers here took the opportunity of an early opening of navigation to bring over the lumber they had bought during the winter for the purpose of stocking up their yards for the spring trade. The large early receipts that cut such a figure in the totals did not go to the market, but directly to the docks of the purchasers. This is always the case for a period after the opening of navigation, but it was peculiarly so this spring, because of the large amounts that had been purchased on the east shore, transactions that had been unwontedly stimulated by the heavy demand. It is, noteworthy, too, that a large proportion of such lumber arrived from Muskegon, the wintered-over stock there of over 100,000,000 feet having been largely purchased late in the fall or early in the winter by Chicago dealers, and of course was brought forward as early as possible to replenish broken and depleted stocks; so that really Muskegon has contributed this spring as much to Chicago receipts as ever, and more, considering the early opening of navigation.

Another cause for unusually heavy receipts is the fact that the general boom in the lumber business, and the high figures that manufacturers have placed on their stocks, giving the cargo market here a dizzy altitude at the opening, prompted everybody on the lake who had held over any lumber to crowd canvass for this port as soon as possible. This has brought in early a large amount of lumber that ordinarily would have come a little later. It has been noticed that several cargoes have arrived from Saginaw, an unusual event for so early in the season.

Some might be inclined to think that because the stock on hand at initial points has been rushed forward early that later receipts would proportionately diminish. But that is an unsafe conclusion. The mills this season will be run for all there is in them—and there is more in them than usual, for the reason that repairing and improving the past winter has been extensive. It is said, with truth, that when a saw mill owner has had a successful year, he is seized with a consuming desire to overhaul and repair his mill. That is what has ailed him during the past winter, and the result is that the mill capacity of 1882 is much greater than ever before, not only on account of improvements in old mills, but because of a large number of new mills that have been built. We shall have to conclude that the cut of the present year will be pushed quite to the extent of the log supply, and that the output will come forward more voluminously than ever. Of course the continuance of the strike at Muskegon must be taken into account, as well as like labor disturbances elsewhere, which involves a vast possible difference in the season's results.—*Northwestern Lumberman.*

GOVERNMENT PROTECTION.

We are glad to perceive that action is being taken by the national legislature for the protection of timber on government land and on the Indian reservations, and to prevent the wholesale and wanton destruction of the same, which has heretofore been prevalent. Senator Cameron, of Wisconsin, has been especially urgent in this matter, and if he is successful will be deserving of the gratitude not only of his own constituency, but the country at large. The proposed law provides that "every person who unlawfully acts or aids, or is employed in unlawfully cutting, or wantonly destroys or procures to be destroyed, any timber standing upon lands of the United States, which, in pursuance of law, may be reserved or purchased for military purposes, shall pay a fine of not more than $500, and be imprisoned not more than twelve months."

Secretary Kirkwood also has taken advanced ground in this same direction, and has been importuning congress for the enactment of such laws as will prevent depredations upon the timber lands in the Indian reservations. The commissioner of Indian affairs also shows his interest in the protection of the forests, and in a later letter says: "I cannot too strongly urge upon the department the importance of early action by congress upon this subject. In the Indian territory, especially, spoliation of valuable walnut timber has been for a long time past, and is still being carried on, and unless some stringent and effective measures are devised to stop it, that whole country will be devastated of timber. Moreover, it is apprehended by those competent to judge, that this wholesale stripping of lumber will result in disastrous climatic effect."

The indications from all directions, in fact, are of the most gratifying and reassuring character. The representatives in both branches of the national legislature are becoming thoroughly awakened to the importance of this question, and are evidently ripe for the adoption of such a policy as shall not only protect the timber already standing, but for the inauguration of measures with the object in view of replacing the timber of which our forests are being rapidly and in many cases unnecessarily denuded, and also for the establishment of a system of forestry culture as shall supply the future demands of the industries of the nation based on wood for their chief staple.—*Lumberman's Gazette.*

MONTREAL NOTES.

The Montreal *Gazette*, of May 13th, has the following remarks upon the trade there:—There are already signs of an active export movement in lumber, as large quantities are arriving by barges and rail from Ottawa. Considerable deals for the United Kingdom and lumber for South America are being piled on the wharf at Hochelaga ready for shipment as soon as vessels arrive. The first shipment of deals to Great Britain was made on the steamship *Manitoban*. We have no further charters to report, having previously quoted all that have been made this season at $14@16 per M. feet by sailing vessels, according to size, to the River Plate, and at 55s to 60s by steamer to the direct ports in the United Kingdom. We understand that American orders have been received at Ottawa, and that orders are about being filled both by rail and boat. In this market we hear of no transactions on export acconnt as they are generally negotiated at a certain price at the mills, but we hear of one or two sales of shipping culls on the basis of about $13@13.50 laid down here. There is a good local enquiry, consumptive wants being larger than at this time last year. American buyers are looking for certain kinds of hardwood, but we have not heard of any business yet. Advices just at hand state that owing to low water in some of the tributary streams of the Ottawa very few logs have been got out this season, and that rain is much wanted to move them. In the larger streams, however, the supply has moved forward freely, and as the cut was generally large, there will, in no event, it is thought, be a dearth of product.

OUR PINE FORESTS.

The first paper read at the recent Forestry Congress at Cincinnati was that of Mr. James Little, of Montreal, on "The Pine Woods of Canada." The writer expressed regret that his advanced age prevented his attending the Congress. His paper related to the White Pine forests of Canada and the serious commercial loss that would arise from a total loss of the woodlands. Laboring for years almost single-handed to bring his own people to a proper knowledge of the subject, he expressed gratification that the papers of this country had so generally taken up the question of forestry. He claimed that the black walnut, once so abundant, and oak and ash, for long a great source of revenue to the country, were nearly all gone, white pine, spruce, birch and tamarac were following so fast that soon none would be left of commercial value. He corrected the error of considering the timberland of Canada as practically exhaustless. He thought ten thousand millions of feet, board measure, would comprise the merchantable pine of Canada, Ontario, New Brunswick and Nova Scotia, which might be exhausted in less than ten years. The stock in Newfoundland and the area adjoining Hudson's Bay was still satisfactory in amount. He quoted the remark of Mr. Charles Gibbs that "our native white pine may yet be peddled in some parts of our country as a rare exotic, so scarce has is become. Britain, which was supposed to need timber only for repairs, being built up, paid seventy-five to one hundred million dollars yearly for her timber, paying the cheapest rates. Mr. Little thought that if the waste of forests was not checked it would yet cost more than all our exports of grain and cotton, and require more than the combined sailing tonnage of the whole world to procure timber for the use of the United States from other countries. The effect of the dearth of timber now threatened upon the industries of the United States and of Canada was one which may well cause apprehension.

PORT HOPE.

About six o'clock on Friday, May 19, a pile of lumber was discovered on fire at one of the centre docks of the harbor. A stiff east wind was blowing at the time and the flames spread rapidly. The alarm was quickly given, and a great crowd of citizens hurried to the scene. The Midland Railway hands were ordered to the conflagration, and they soon had all the neighbouring piles of lumber floating in the harbor. By that time the flames had reached the docks, and three or four hours had to be spent in extinguishing them, but not until nearly one hundred feet of dockage had been burned or destroyed. The lumber that was burnt, about 30,000 feet, belonged to S. C. Kanaday, purchased from Irwin & Boyd, Peterborough, on which there was no insurance. It will probably cost two or three thousand dollars to replace the pier that has been destroyed. But for the tremendous exertions of the fire brigade and the assistance rendered by the steam pumps on the tugs, and the steamer *Norseman*, the fire would have swept the whole of the centre piers. None of the loss is covered by insurance.

Weights of Timber.

Weights of logs and lumber are given as follows in a book recently issued by H. K. Porter & Co., Pittsburgh, Pa.:—Weight of green logs to scale 1,000 feet, board measure—Yellow pine (southern) 8,000 to 10,000 pounds; Norway pine (Michigan), 7,000 to 8,000 lbs.; white pine (Mich.) off of stump, 6,000 to 7,000 lbs.; white pine (Mich.) out of water, 7,000 to 8,000 lbs.; white pine (Penn.) bark off, 5,000 to 6,000 lbs.; hemlock (Penn.) bark off, 6,000 to 7,000 lbs. Weight of 1,000 feet of lumber, board measure—Yellow or Norway pine, dry, 3,000 lbs.; green, 5,000 lbs.; white pine, dry, 2,500 lbs.; green, 4,000 lbs. Weight of one cord of seasoned wood, 128 cubic feet per cord—Hickory or sugar maple, 4,500 lbs.; white oak, 3,850 lbs.; poplar, chestnut or elm, 2,250 lbs.; pine, white, or Norway, 2,000 lbs.; hemlock bark, dry, 2,200 lbs. (One cord bark got from 1,500 feet logs.)

Adirondack Timber.

The Saginaw *Courier* says the sale of a large tract of timber land in the Adirondack, N.Y., region is as good as made to a party of Michigan lumbermen and Hartford, Ct., capitalists. The purchase price is to be about $250,000, and on the tract there is said to be a quarter of a billion feet of white pine timber, besides spruce and hemlock. The timber has hitherto been considered inaccessible, as a downeaster would never thing of constructing a railroad to haul logs on. To reach the heart of the tract it will require the construction of 11 miles of road, over an expensive route, but the timber will well repay the undertaking. A mill and planing mill to work the timber up are also contemplated. There is no reason why a bonanza is not concealed in this project, since experienced Michigan land lookers have estimated the quantity of timber as I have stated.

KEEP this idea in your mind, if you have a dam to build at all, it pays to build it well; and if you do not understand how to do it, get some one who has had experience and whom you know does understand, and pay him well to do a good job.

THERE was lately a great jam of logs in the Hudson River at Palmer Falls, Corinth, which increased rapidly. It extended three-quarters of a mile above the dam of the Hudson River Pulp and Paper Company, and it is estimated that fully 1,500,000 pieces of timber were lodged there.

Chips.

R. M. WANZER & Co., of Hamilton, are about to build a large woodwork factory.

THE Menominee River and Manufacturing Company had, on May 1, rafted and delivered 19,000,000 feet more logs than on the same date last year.

THE two Napanee paper mills turn out about 9,000 lbs of paper per day. The paper mills are importing pulp—poplar from Thorold, Quebec and Niagara Falls.

THE New Brunswick chair factory, at St. John, is to commence work early next month. Mr. D. L. Richards has gone to Boston to purchase machinery for it.

THE Kirby-Carpenter Company's two mills, at Menominee, Mich., turned out 329,000 feet of lumber in one day recently. The Company's new mill will average 200,000 feet daily.

MERRILL BROTHERS, Williamsport, Pa., are to build a railway, four miles long, up Anderson Creek for the purpose of running in their logs. They propose hereafter to be independent of snow.

JAMES STEWART, of Saginaw, has closed a contract with Stockwell & Belknap, whose mill is on the Harrison branch, for 20,000,000 shingles, the entire cut of the mill for the ensuing year.

IT has been decided to see relief for the Oshkosh and Fond du Lac, Wis., water powers, from difficulty by high water in Winnebago Lake and Fox River, by widening the point of overflow in the lake.

THE statement of business at the Erie canal collector's office, at Buffalo, N.Y., for the month of April, gives the total exports in lumber, etc., as follows:—Lumber, 3,689,813 feet; shingles, 1,322,000; staves, 4,139,542.

THE New York Central and Erie Railroad Companies intend to build a bridge across Tonawanda creek, at Tonawanda, N. Y., for the purpose of reaching the Export Lumber Company's docks and planing mills.

THE firm of James Hay & Co., Woodstock, Ont., has just received from the manufacturers, Messrs. Haggart & Co., Brampton, a traction engine which will be used for drawing logs from the bush to the factory. It works nicely.

JOHN MARKS and others, of Detroit, are putting in about 12,000,000 feet of pine on a logging railroad seven miles in length. The logs are banked on the south branch of the Chippewa River. They expect to have the timber in early in September, and the road will then be shifted to another point where the firm own a large tract of pine.

THE New York *Sun* says Chicago is the greatest lumber market in the world. The single item of sawed lumber received there in 1881 would lay an inch flooring 14 feet wide round the earth, at the equator. The amount of lumber manufactured in the three states of Michigan, Wisconsin and Minnesota during 1881 would lay such a floor 50 feet wide."

THE *Chronicle* says Messrs. McLachlin Bros., Arnprior, are making arrangements to have their mills and lumber yard lighted by electricity this season. They also intend building waterworks, with hydrants at convenient distances, all through their lumber yard, for the purpose of acquiring more efficient protection against fire. Their forethought and enterprise in this direction is worthy of emulation.

THE *Northwestern Lumberman* says that of over 700,000 square miles of timber in the United States, the South owns 460,000, or nearly two-thirds of the whole. In a very few years this will busy over 50,000 laborers in cutting, rafting, sawing and shipping. Already parties are making large purchases of these lands, locating mills, opening turpentine farms, and building railroads into the timbered regions.

THE prospectus of a large carriage factory, to be established at St. Catharines, has been issued. It is intended to manufacture street cars, railway cars, wagons, and buggies, and the concern will be called the St. Catharines Manufacturing Company. It will employ between 80 and 100 men at the start. Capital, $75,000, in shares of $100 each. The stock books are opened, and a large amount of stock has already been subscribed

TIMBER and lumber to the amount of 400,000,000 superficial feet is annually supplied by the forests of New Zealand, valued at about $8,000,000.

DURING the month of April, 6,173,000 feet of yellow pine were shipped from the port of Jacksonville, Fla., as against 3,330,000 feet for the same month last year, and 2,569,535 for April of 1880, an increase of 2,843,000 feet over 1881, and of 3,603,465 over 1880. The shipment of lumber from that port increases every month, and it is believed that the shipments in 1882 will double those of any previous year. The figures given do not include the shipments over one of the roads.

THE white pine is the most valuable tree in Newfoundland. In the section known as the Gaudu country it is estimated there are 850 square miles of land thus timbered, which is easily accessible by small boats on the Gaudu river. The yellow or red pine is also largely found, while there is no beech, elm or cedar. Fine forests exist about St. George's Bay, and in the valley of the Humber. No revenue, however, is derived by the colony from these forests, which are cut at will by the property owners.

THE *Northwestern Lumberman* says that in Michigan the color that maple lumber assumes when cut, stuck and seasoned, as it ordinarily is, has seemed to answer every purpose, but in the eastern markets, where the wood has been longer in use, very white lumber has been in demand, and at all times the whiter the better. To secure as light shade as possible the timber is both cut and sawed when frozen. It is then stuck, the boards slanting to such an extent that the sap, when thawed, will drain off as much as possible.

THE *Lumberman's Gazette* says that while the supply of lumber in the United States is fully equal to present demands, it is difficult to foresee what may be the increased requirements, domestic and foreign, in the early future. It is very certain that due provision is not made for planting, and while some states have shown commendable care and energy in that respect, others have been singularly negligent. What, in the course of a few years, will become of the lumber trade of Pensacola, Mobile and other southern ports, with the present rate of clearing?

THE *Timber Trades Journal* of May 6th says three-and-twenty timber laden vessels into London, to represent a whole week's importation, is by no means such an alarming number as to create a panic among the holders of any considerable quantity in the docks, and thereupon to cause them to hurry their goods into the public sales, and let them go without reserve for what they will fetch; were the trade a little brisker, this very moderate week of importation would be very encouraging, but with such a heavy stock already stored here prices would hardly rise if the importation were to cease for a month or so altogether.

ACCORDING to the *Timber Trades Journal* of May 6th, the reports from Sweden are rather more encouraging as regards the supply of logs from the interior; these were hung up for want of snow, but a very heavy fall of that necessary commodity, which prevailed throughout the north of Sweden about Easter time, will enable a greater portion of the timber to be floated down to the mills, and the fears entertained about an insufficiency of logs will be greatly relieved. This will be welcome to those millowners who were short of their usual quantity, and make them easy on the score of carrying out the contracts already entered into for later shipments.

THE *Monetary Times* says that the manufacture of wooden houses, in sections which can be taken apart and readily transported to our prairie lands, or to northwestern villages, is an important and likely industry. Such houses have been made in Chicago and St. Paul, for Dakota and Minnesota, and we believe they are made in Ottawa for Manitoba. We are glad to notice the formation of a company with a capital of $120,000 for the manufacture of prairie houses. The principals are stated to be Robt. Hay, M.P., Mr. Colby, M.P., Hon. Dr. Schultz, Messrs. Dawson, E. A. Pew, of Welland, and Hilaire, of Montreal. The factory will be situated at Welland.

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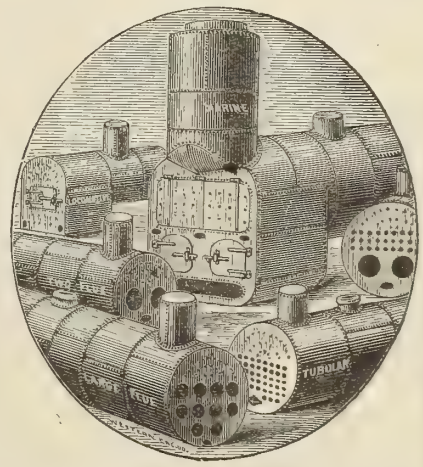

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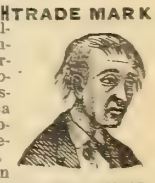

BEFORE TAKING

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Market Reports.

MONTREAL.

From our own Correspondent.

MAY 23rd.—The heavy rain which this region has been visited with during the past 24 hours seems to have put new life into all kinds of business, and will help the movement of logs in some of the streams running into the Ottawa, which it was feared would not be got out on account of the lowness of the water. The consumptive demand in our local market has been moderately active and considerably larger than last year at this time. Prices are well sustained, as dry seasoned stock is not by any means in over supply. The cut in the lumber districts this season has been pretty large, and stocks are expected to be fully maintained here. We quote prices steady as follows for sound lots, ex yard :—

Pine, 1st quality, ₱ M	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M	14 00@15 00
Pine, cull deals, ₱ M	8 00@12 00
Pine, mill culls, ₱ M	8 00@10 00
Spruce, ₱ M	10 00@11 00
Hemlock, ₱ M	9 00@11 00
Ash, run of long culls out, ₱ M	16 00@18 00
Bass, " " ₱ M	16 00@17 00
Oak, ₱ M	35 00@45 00
Birch, ₱ M	17 00@20 00
Hard Maple, ₱ M	18 00@25 00
Lath, ₱ M	1 50@ 0 00
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

SHIPPING.

Large quantities of lumber are arriving awaiting shipment by the first chartered vessels. The delay caused to shipping by so much ice in the Gulf has kept vessels back, although not much later than last year, when the first vessel to the River Plate sailed on the 9th of June. As there are a large number of vessels to load, shippers will soon be very busy. No rafts have as yet passed the city.

FREIGHTS.

There has been several engagements of ships for lumber to South America since the date of our last report, at $14, while steamships for direct ports in the United Kingdom get from 55s. to 60s.

CORDWOOD.

Wood is plentiful just now, but as little wood was got out this season in Upper Canada, the prospects are that it will be scarce and prices at this moment are very firm, but the demand is poor, as is usually the case at this season of the year. We advance some of our quotations this week for wood on the wharf, ex cartage :—

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	5 50
Short "	5 00
Tamarack	4 50@5 00

TORONTO.

From our own Correspondent.

MAY 22nd.—Sales have assumed a brisker aspect since I last wrote you, and most of the yards are now fairly active and prices remain firm, with a decided scarcity of dry lumber, in fact 1½ in. dry picks and cut up cannot be got in any quantity, factory men being the only ones possessed of any stock of this description ; but the quantity of building material to be used in this city this season will be far below the two preceding years, as speculative building has been most effectually choked off, and is now being carried on by only two or three individuals whose credit remains as yet unimpaired, and lumber dealers have now come to the conclusion that if they undertake to deliver a bill of lumber they have a clear right to know when and by whom they are to be paid. Heretofore in numerous instances the lumber has been delivered and used in the buildings, the bricklayer and carpenter, and in fact all tradesmen whose labour had gone into the buildings, made themselves secure by lien, and if the speculator failed to complete his contracts, the mortgagee steps in and takes possession, and the lumber dealer may whistle for his money. This, I venture to say, is a state of things that has no right to exist in any country. The lumber has gone into the buildings, and the mortgagee has value, if not, the fault is his own, but in any case the one who delivers any material that goes into the construction of any building should be able to collect from someone for that material.

Shipping over the docks is still fairly active, but a prevalence of east winds during the last two weeks has somewhat retarded vessels from making speedy trips, and one noticeable feature in present shipments is the small quantity of good lumber going forward, which may be partially accounted for by the fact that owing to to the good prices offered last fall, nearly all the good lumber fit for shipment went forward before the close of the season, and some by rail during the winter months, so that we need not look for much clear and picks to go forward until this season's cut is fit for removal, and the percentage of good lumber obtained from a season's operations is far below that formerly obtained from stocks cut on the frontier townships.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	16 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1¼ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅝ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M	2 50@3 00
XX sawn shingles	2 75
Sawn Lath	2 50

OTTAWA.

From our own Correspondent.

MAY 24th.—Everything hereabouts is practically "booming," and the lumbering industry presents a hopeful outlook. Already a number of the season's cuts have been disposed of. Very little lumber remains on hand unsold, and there is none of last year's cut but what is sold and is being shipped. Lumber is in good demand and mills are in full operation. Mr. Huntley, the obliging agent in this city for the New York & Lake Champlain Transportation Company, informs me that shipping just now is exceedingly lively, but there is a scarcity of boats.

SHIPPING RATES

at present are as follows :—

To New York, stocks and sidings	$3 50
To Albany, " "	3 25
To Whitehall, " "	3 25
To New York, strips and shorts	3 75
To Albany, " "	3 50
To Whitehall, " "	2 50

MILL RUNS.

For the season's mill run, including all that a fair average quality of logs will make (mill culls out), are selling at from $15 to $17 per M.

1×12 good stocks, 12 to 16 feet	$20@22 per M.
1×12 s. cull " "	13@15 "
1×10 good stocks, "	18@20 "
1×10 s, cull " "	12@14 "
1 in. good stocks	30@35 "
1¼, 1½ and 2 in. cull	30@35 "
1 in. s. cull sidings	10@11 "
1¼, 1½ and 2 in. cull sidings	12@13 "
1¼, 1½ and 2 in. good strips	19@23 "
Cull strips	7@ 9 "
Good strips, 6 to 11 feet long	16@18 "
Culled strips " "	7@ 9 "

The above mentioned prices vary as regards the quality and width.

DIMENSION LUMBER.

Size.	*Length.*	*Price.*
12 in	12 to 15 feet	$13 per M.
"	16 " 19 "	14 "
"	20 " 24 "	15 "
"	25 " 29 "	17 "
"	30 " 34 "	19 "
"	35 " 39 "	21 "
"	40 " 44 "	25 "
"	45 " 49 "	30 "

In larger sizes the prices increase in proportion.

RUNNING THE SLIDES.

Square timber rafts have already commenced running the slides at this city. Mr. O. Latour's is now being brought down. It is a splendid looking raft, some of the timber having a prime appearance. Considerable improvements have been made to the slides, which will be a great saving to the lumbermen in preventing accidents, which in the past were numerous.

A NEW ADVENTURE.

Heretofore the idea of navigating the lakes above the Ottawa was not even thought of, but the remarkable progress of the day has brought a wonderful change, and this summer witnesses steamboats plying on Lakes Temiscamingue and Kippewa. This gratifying innovation is due to the enterprising spirit of Mr. Oliver Latour, who has constructed two crafts to navigate those large bodies of water. These boats will prove a great boon to the limit owners in that part of the country, who will save three week's time in bringing the timber to the mills and markets. One remarkable incident connected with this enterprise is worthy of notice. The two engines and boilers and other machinery of one of these boats had to be transported a distance of seventy miles over a very mountainous country. The task was considered as almost impossible, but the energy of Mr. Latour overcame all obstacles, and the work was completed satisfactorily.

SEASON OF LOW WATER.

Local millowners again this year fear a repetition of last spring's low water, and consequent impossibility of navigating the logs cut the past winter on the limits, and also those stuck last year, down to the mills. It some cases it is reported that certain jobbers had to drag the logs over the ground a considerable distance, the creeks having dried up. This will entail an extra expense. If heavy rains do not soon fall, things generally will have a rather blue outlook. The timber that has reached the main stream will reach its destination all right. Nearly every bay on the Temiscamingue from the Kippewa up to the Fort is full of logs or timber, sometimes both. Mr. Latour, Captain Young, and Mr. Sireeney occupy the east shore, and Mr. Hickey the west.

CANADA'S PINE WOODS.

Mr. James Little, of Montreal, well known as having devoted many years' services in regard to forestry, was in the city a few days ago on business with the government. Mr. Little was one of the invited delegates to the American Forestry Congress, which was held some time ago at Cincinnati, O., and the next session of which will be held in Montreal in August next, about the same time as the meeting of the American Association for the Advancement of Science. During a conversation with Mr. Little, that gentleman expressed gratification that the papers of this country had so generally taken up the question of forestry, and dwelt upon the rapid consumption of our supply of pine timber.

LONDON, ONT.

From our own Correspondent.

MAY 23rd.—There is nothing of great interest to report in the lumber business of this city since my last letter. You will remember that some weeks ago the merchants held a meeting and entered into a compact to sell only at uniform figures. This would appear to have been the most equitable and reasonable method of self-protection and protection to the lumber business of the city generally, but it has been elicited that parties to the compact made have broken their obligations, and have succumbed to the tempting tenders of cash down. These cases, however, mostly apply to small lots purchased by farmers and carried out to their farms in their own wagons. The principle, however, is a dead letter, so far as any agreement in prices is concerned, and some of the honorable dealers who have striven hard to maintain the integrity of this agreement, have resolved to pay little or no attention in the future to these explosive consolidations.

Stock boards which were firm at $16 are known to have been sold at $15 and $15.50.

Shingles also show an easier tendency, though at the mills prices are actually hardening.

The block pavement is progressing satisfactorily. There is no waiting for blocks, they are coming in by the train about twice each day, and are discharged into the very hands of the workmen. Mr. Cathro, the contractor, seems to understand his business.

Building here is very dull, there being nothing of importance going forward with the exception of Birrell's new wholesale warehouse ; other properties will, however, be proceeded with as soon as ever brick begins to come in.

Though prices may be said to be somewhat easier, I could not, with any certainty of being correct, make any change from those last given.

QUOTATIONS.

Mill cull boards and scantling	$12 00
Shipping cull boards, promiscuous widths	13 00
" " 10 and 12 in. stocks	13 50
Common boards, promiscuous widths	15 00
Scantling and joist, up to 16 ft	16 00
" " " 18 ft	16 50
" " " 20 ft	17 50
" " " 22 ft	18 50
" " " 24 ft	20 00
Common stocks	16 00
Common 2 in. plank	15 00
Cutting up plank and boards	20 00
Sound dressing stocks	19 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
¼ inch dressed and matched flooring	22 00
½ " " " "	22 00
1 " " " "	22 00
XXX sawn shingles, ₱ M	3 25
Lath per 1000 feet	5 00

ST. JOHN, N. B.

From our own Correspondent.

MAY 20th.—Since last report very little of special interest has occurred in connection with the wood trade. The continued cold, dry weather keeps the freshets in the rivers and streams at a moderate pitch, and the driving and rafting of logs are in steady progress.

DEALS.

There is no change in the deal market. The demand shows no signs of abatement, and prices are firm at our last quotations. There is no accumulation of stock, shipments keeping pace with the production.

STEAMSHIPS.

With regard to steamships, the cry is, "still they come." The following steamers have arrived since the date of last report, and several others are chartered to arrive :—

Victoria, 2,081,	Rhiwindda, 1,329,
Panama, 1,357,	Stanmore, 1,369,
Juliet, 1,364,	Italia, 1,451,
Cid, 976,	Coronella, 875.

FREIGHTS.

The freight market is still controlled by steam. Rates have fluctuated between 47s. 6d. and 50s. ; we quote 49s. as about the market rate to-day. We hear of no exclusively deal charters by sailing ships.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows :—

For Europe	12,554,000 Sup. feet.
" United States	2,846,000 "
" West Indies	164,000 "

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Antwerp, 573, E. C. Ireland or W. C. England.
Serrano, 594, Waterford.
Orontes, 740, W. C. England.
Henry, 1,064, Liverpool.
Rurik, 881, United Kingdom.
Minnie Swift, 1,150, Liverpool.
Low Wood, 1,091, W. C. England.
Crown Jewel, 716, W. C. England.
Melbourne, 621, Limerick.
Maori, 656, discharging.
Bertie Biglow, 1,142, Liverpool.
Syringa, 605, Galway.
Nordcap, 475, United Kingdom.
Panama, (s), 1,357, France.
Juliet, (s), 1,364, Liverpool.
Cid, (s), 976, United Kingdom.
Frisk, 619, United Kingdom.
Rhiwindda, (s), 1,329, Bristol Channel.
Anna P. Odell, 379, ——
Deveti Dubrovacki, 640, Liverpool.
Stanmore, (s), 1,369, Bristol Channel.
Italia, (s), 1,451, Glasgow.
Coronella, (s), 875, United Kingdom.
Kate Barrie, 691, W. C. Ireland.

ALBANY.

The *Argus* says dealers in pine lumber report a steady trade throughout the week at unchanged prices. New York dealers, with whom stocks of all kinds of lumber are very light, are not as yet free buyers in our market, yet they cannot go to the mills in Michigan or Canada and buy stock at the price they can obtain it here. The moderate receipts by canal are to be ascribed to the advanced freights at Buffalo and Tonawanda to $2.50 per M. feet to Albany ; but few boats are to be had at that figure, and a still further advance is looked for by some houses here.

Very little, if any, dry lumber is to be had in Michigan or Canada ; large sales of new cut are being made.

Hardwoods are firm in price and in steady demand.

Coarse lumber receivers report no change in

prices with a good demand; the receipts have been fair, giving the trade a well assorted stock. Any increase in stock would lead to the piling up thereof instead of accepting lower prices. It is now ascertained that the logs which were floated over the Miller dam will not furnish a supply to exceed three weeks, even should the mills resume full work, which has to some extent been suspended by a strike thereat. The present prospect is that owing to lack of water and bad management the number of logs "jammed" at Miller's will be largely increased.

Freights are $1.50 per M. feet from Bay City to Tonawanda,, and $1.75 from Saginaw to Tonawanda; from Tonawanda to Albany, $2.50. Lake Ontario freights, $1.20 from Toronto, and from Bay Quinte to Oswego; 90c. from Port Hope to Oswego. From Ottawa to Albany, $3.25 to $3.50.

Receipts of lumber at Chicago from January 1st to May 20th were 371,015,000 feet, against 220,000,000 feet for a corresponding period in 1881.

The receipts of lumber at Buffalo for the week reported are 10,250,000; at Oswego, 9,352,000 feet.

Quotations at the yards are as follows:—

Pine, clear, ₱ M	$55 00@63 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in.	00 26@00 32
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft.	25 00@30 00
Pine, 12-in. boards, 13 ft.	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M	35 00@40 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@70 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 70

CHICAGO.

MAY 20.—The *Northwestern Lumberman* says the receipts of lumber at Chicago during the past week show a material reduction from those of the corresponding week of last season, and nearly as great a falling off from those of the previous week of the current season, the proportionate decrease following the item of shingles. The falling off may be attributed to two or three causes, each of which have exercised a considerable influence. The labor strikes, and consequent shutting off of the manufacture at so important a point as Muskegon, could have but the natural effect of reducing the receipts of Chicago, which looks upon Muskegon as its most important and extensive source of supply.

The Monday offerings were large, aggregating 32 vessels, while Tuesday brought but a light fleet. Wednesday found not a single vessel at the docks, and Thursday's offerings consisted of but one cargo—a load of shingles. The bulk of the week's receipts arrived at this port in the three or four days following the date of our last report, and the tendency of the market during those days was towards a weakness, especially on coarser grades of lumber and dimension stuff, which were but in light demand at a positive concession.

Short lengths of green piece stuff sold at from $11 to $11.50, and coarse boards and strips were sold at the same figures. Better quality and grade were firm at higher figures, ranging from $11.50 to $12.50, according to quality, length and condition of seasoning. The better grades of lumber were, and at this writing are, firm at former quotations, good No. 2 log run of boards and strips ranging from $14 to $17, with No. 1 log run bringing from $17.50 to $22.

The state of the shingle market is one of firmness, prices as previously quoted being still unchanged, with a good demand and sales. Standards hold at $2.70 to $2.80, and *A* at $2.85@2.95. Clears are not in the market, while much wanted, as are all the better and more favorite brands of other grades.

The total receipts of lumber have now reached 367,440,000 feet, and of shingles, 146,267,000. An excess over last season to the same date of 154,218,000 feet of lumber and 42,164,000 shingles, while the excess of shipments representing the increased trade of the season have reached 261,870,000 feet of lumber and 132,150,000 shingles.

CARGO QUOTATIONS.

Short dimension, green	$11 50@12 00
Dry	12 00@12 50
Long dimension	12 50@17 00
Boards and strips, No. 2 stock	11 50@17 00
No. 1 stock	17 00@22 00
No. 1 log run, culls out	18 00@22 00
Standard shingles	2 70@ 2 80
A	2 85@ 2 95
Lath	2 40

Receipts and shipments of lumber and shingles for the week ending May 17, as reported by the Lumberman's Exchange:—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	46,128,000	20,470,000	36,373,000	33,500,000
1881	56,962,000	25,755,000	22,870,000	14,495,000

Receipts and shipments of lumber and shingles from January 1, to and including May 17th:—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	367,440,000	146,267,000	661,695,000	278,470,000
1881	213,222,000	104,103,000	399,825,000	166,320,000
Inc.	154,218,000	42,164,000	261,870,000	132,150,000

LAKE RECEIPTS TO MAY 18.

1882	266,271,000	120,951,000
1881	129,754,000	70,600,000
Increase	136,517,000	50,351,000

STOCK ON HAND MAY 1.

	1882.	1881.	1880.
Lumber	294,244,311	228,256,644	238,483,874
Shingles	104,027,305	73,698,575	115,116,000
Lath	10,611,535	21,038,756	23,736,360
Pickets	1,827,993	2,693,844	670,259
Cedar posts	159,937	550,027	75,728

BOSTON.

MAY 20.—The *Journal of Commerce* says the market during the week has shown no special change since our last. As far as can be learned, the demand is very fair for most grades of stock. Everything is running smoothly in this market. In New York and some of the other large cities, it is reported that trade has fallen off somewhat, owing to the opposing views of capital and labor. Of course, if this dissatisfaction continues, the feeling will spread and we will be just as badly off as the worst. It is to be hoped, however, that the trouble will be settled ere long. Until then the future of the market must of necessity be very uncertain. It is reported that concessions have been made on some large lots in New York, but this is not substantiated by any real change in quotations. Most of the yards hereabouts have a very fair assortment on hand, and are really better prepared to meet the wants of customers than was anticipated. At present buyers in all the principal markets are taking hold very cautiously. Regarding hardwoods, it is sufficient to say that the better grades are in fair demand, while culls and the like are slow. We give quotations for car load lots:—

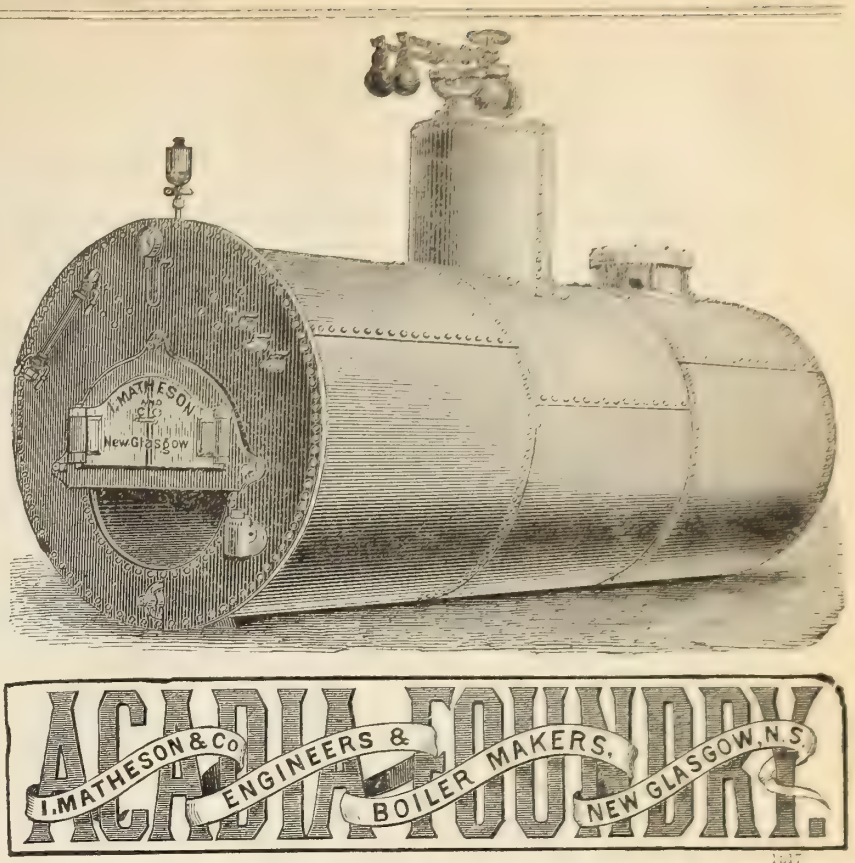
CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

OSWEGO, N.Y.

We change quotations on some grades. Prices are still firm, though the market is filling up rapidly. Assortments are good, and trade has been only fair during the past two weeks.

Three uppers	$42 00@46 00
Pickings	32 00@36 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	11 00@14 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@40 00
1¼ inch	34 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1¼ inch mill run	14 00@20 00
" " " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 00@ 4 50
XXX, 18 inch, cedar	3 00@ 3 60
Lath	1 50@ 1 80



BUFFALO.

We quote cargo lots:—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@48 00
Common	20 00@22 00
Culls	14 00@15 00

LIVERPOOL.

The *Timber Trades Journal*, of May 13th, says:—There does not appear to be any signs of a more lively tone of business setting in, as, with the exception of a few good orders, there has been very little done during the past week. The feeling of uncertainty as to the future course of trade during the approaching import season, which for some time past has been predominant in the minds of those engaged in the timber trade, has been intensified by the lamentable occurrences in Ireland, and the unsettled position of politics.

On Friday last, the 5th May, Messrs. Farnworth & Jardine offered at their sale sheds, Regent Road, one cargo of spruce deals in store and several parcels of Quebec pine deals. The attendance, like at most of the recent sales of whitewood, was composed chiefly of the local merchants, the country buyers being very scantily represented. There did not seem to be much spirit of competition shown, but the sellers, though willing to meet the market in some degree, were yet moderately firm, and withdrew several lots rather than take the bids offered. The Quebec pine deals were apparently not wanted, as there was scarcely a bid for any of the lots, and all were withdrawn unsold.

GLASGOW.

The *Timber Trades Journal*, of May 13th, says:—Wood imports to Clyde during the past week show about 4,000 loads in all, consisting of one cargo of pitch pine, two cargoes of St. John, N. B., deals, and miscellaneous parcels of American and Austrian oak planks and billets, also staves, etc. There is a marked increase in the number of staves (New York, etc.) imported this year so far compared with last, and a new feature in connection with this is the parcels of American dressed staves that have been arriving within the past few months. A large consumption has evidently been going on, the stock of staves at present in first hands here being quite moderate.

Of New Brunswick deals the quantity imported is considerably under the number for corresponding period last year. One of the arrivals from St. John, N.B., above referred to was per steamer. The bulk of the wood imported to Clyde since the beginning of the year has consisted of pitch pine, the arrivals of which have been sufficiently large considering stock held, although under last year's import at corresponding date to the extent of about 9,000 logs.

At the auction sale noted below the demand was quiet, consumers apparently buying only for immediate wants, but prices are being pretty well maintained, and as trade generally is not seriously depressed at present, and stocks comparatively moderate, a hopeful view of the timber trade here may reasonably be entertained.

On the 4th of May, at Greenock, Messrs. Wright & Breakenridge, brokers:—

Quebec Waney boardwood—	50 c. ft. average	per logs	2s. per c. ft.
Do. elm—	50 " "	"	1s. 9½d. "
Quebec 4th pine deals—	13 ft.	11×3	11½d. "
	13 & 14 "	8/24×3	11½d. "
	13 "	7/10×3	11d. "
	10 & 11 "	7/16×3	11d. "
Quebec 3rd pine deals—	12 ft.	11×3	1s. 2½d. "

IF NEARLY DEAD after taking some highly puffed up stuff, with long testimonials, turn to Hop Bitters, and have no fear of any Kidney or Urinary Troubles, Bright's Disease, Diabetes or Liver Complaint. These diseases cannot resist the curative power of Hop Bitters; besides it is the best family medicine on earth.

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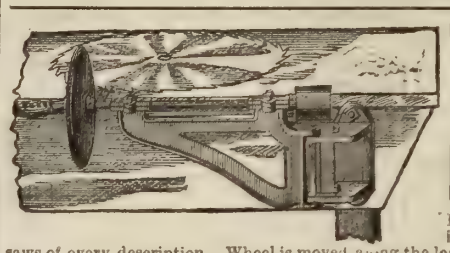

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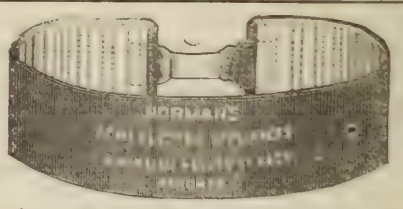

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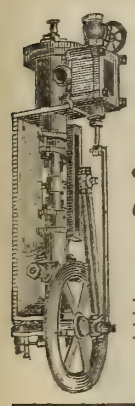

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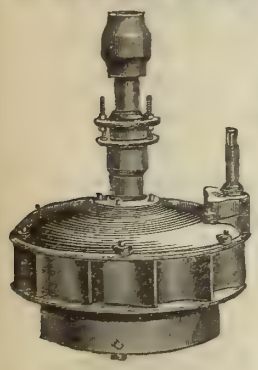

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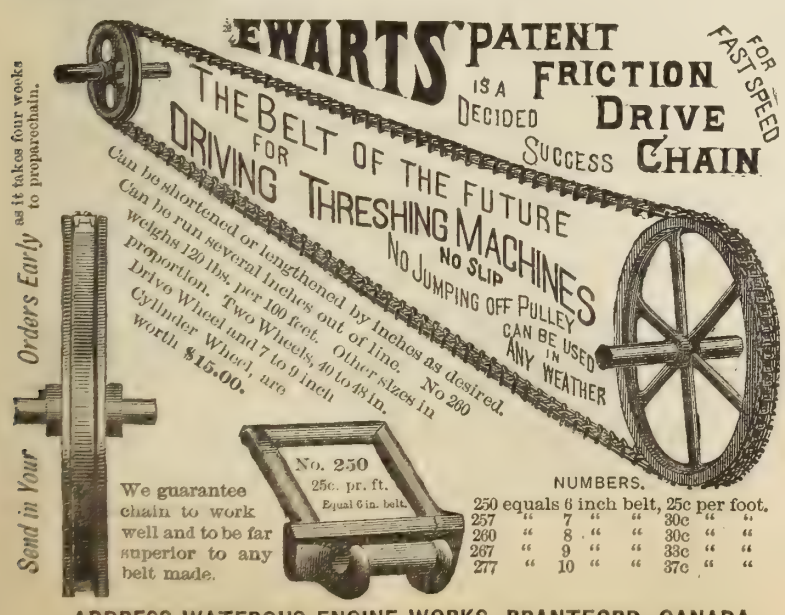
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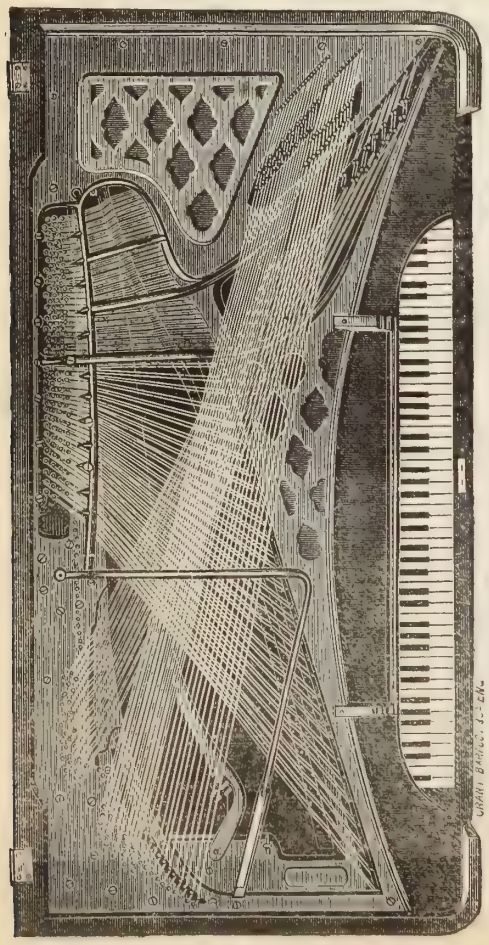

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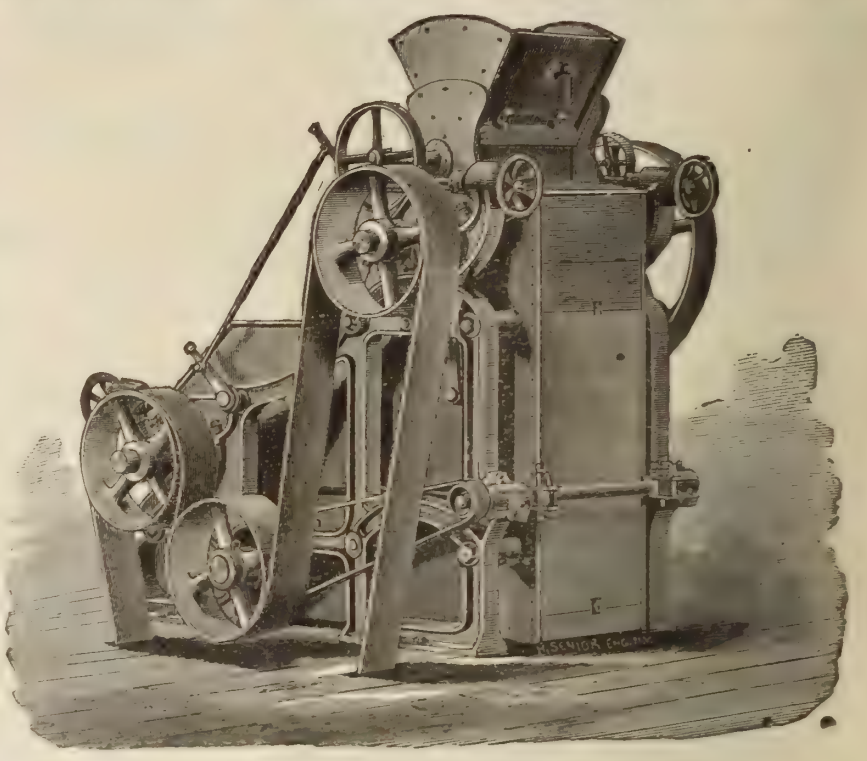
GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

MANUFACTURED EXCLUSIVELY BY

MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

☞Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

1L19 **Mention this Paper.**

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

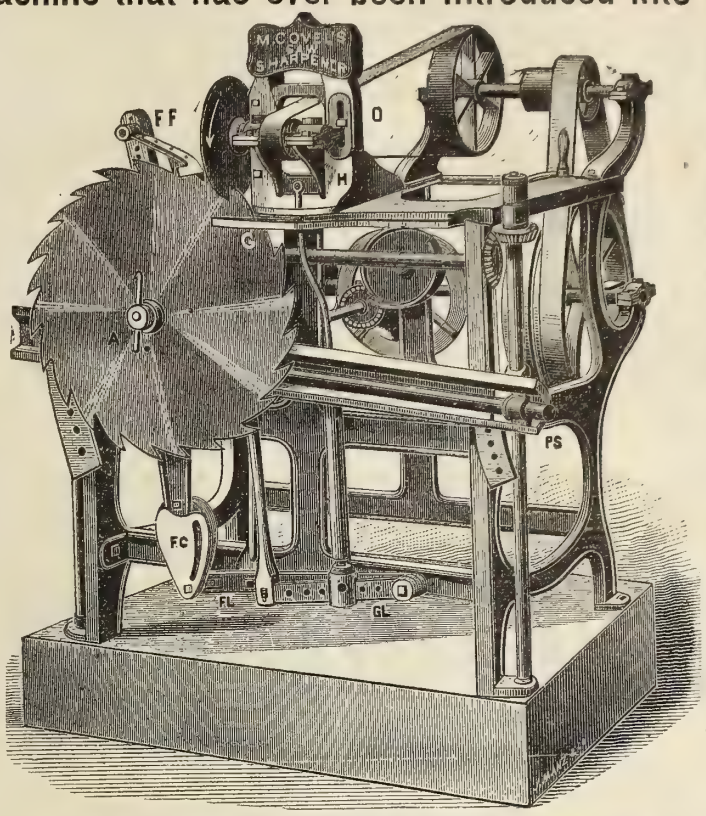
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

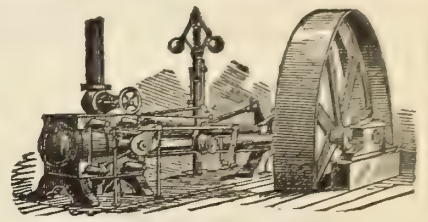
DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS

CORLISS  ENGINES

Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1tf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices.

All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.

BOOK-BINDING of every Description got up in a very Neat and Superior manner.

Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

TOKER & Co.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President.

JAMES T. BARNARD, Hamilton, Secretary-Treasurer.

SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERSTON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

VOL. 2. PETERBOROUGH, ONT., JUNE 15, 1882. NO. 12.

A PECULIAR LAND CASE.

MONTREAL, May 27.—The case of the Dominion Land and Colonization Co., of which Lord Dunmore is president, against G. B. Hall *et al.*, was decided to-day by Chief Justice Dorion, in the Court of Appeals. The history of the suit is rather strange. The company is composed of English capitalists, and was formed with the object of bringing out farmers to settle and to cultivate some of the wild lands of the Eastern Townships. An application was made to the Commissioner of Crown Lands for 300,000 acres, to which an answer was received from the Executive Council to the effect that if an incorporation was procured and proof furnished thereof, the Government, by an order-in-Council, would sell to the Company 100,000 acres of land at 60 cents per acre. The conditions were fulfilled, and in 1881 the company paid the first instalment of $12,000. The contract was duly ratified by the Lieutenant-Governor-in-Council. Almost immediately afterwards the company entered into possession of the lands with the knowledge and sanction of the Crown Lands Department, and on the 9th of May concluded a contract for clearing a large area of the land, upwards of 800 acres, in Whitton, and for the erection of 40 houses for settlers, as well as for a number of saw mills. One of the conditions upon which the land was sold to the company was that two hundred families should be brought out and settled on the land within three years, but to make way for the Old Country settlers it was discovered that upwards of eighty families would have to be evicted from the land unless they were willing to pay the company $5 an acre, for which the company had only paid three shillings. The department finding out that in the transaction they had been actually depriving hundreds of Canadians of homes in order to make way for Old Country folk, set to work to endeavor to rectify the result of their error. They offered a different tract of land, so as to prevent the ejectment of the families already settled. The company, however, refused to give in an account of their improvements. In the meantime, however, (in December, 1881,) the respondents, J. B. Hall & Co., commenced lumbering operations and began cutting timber on certain portions of the estate owned by the company, who immediately applied for an injunction to restrain Messrs. Hall, which was granted by Mr. Justice Doherty, of Sherbrooke. It appears that previous to the purchase by the company of the land Messrs. Hall had a timber license extending over 20,000 of the 100,000 acres sold to the company in Whitton, under which they acquired the exclusive right to all timber thereon, with a right of renewing such timber license every twenty years. The license terminated on the 30th of May, and strange to say, although the order-in-Council authorizing the sale to the company was passed on the 7th of April, 1881, the deputy of the department telegraphed to the local agent, Mr. Patton, to renew the license. The respondents, in answer to the petition for the injunction, plead that the Executive Council had no power to make the grant, and that the order of the Council of the 7th of April, 1881, is *ultra vires*, and is neither a sale or a location, but merely an act of authorization which the Commissioner of Crown Lands could afterwards act upon or not at his own discretion.

In rendering judgment the Chief Justice said that the case hinged upon the question whether the Executive Council had the right to authorize the sale of the land to a company, and if so, had the sale been legally effected by the order-in-Council? The bench was of opinion that the order-in-Council was a thoroughly binding location ticket, and that therefore under it the company's land was exempt from the operations of timber licenses. The judgment of the Lower Court dismissing the application for an injunction was therefore reversed, and the respondents ordered to cease cutting timber from the land. The court intimated that Messrs. Hall had their remedy against the Local Government.

WHITEWOOD AND ITS USES.

In the early days of New York and Philadelphia this wood was extensively used in the construction of houses. It was used for rafters and joists in the upper stories, and was much esteemed for its lightness and strength. As the wood became scarce in the vicinity, pine very naturally took its place. In the Middle, Southern, and Western States, where the tree grows abundantly, it has been, and still is, extensively used, and is considered a good substitute for pine, red cedar, and cypress, and serves well for the interior work of houses as well as for external covering. The panels of doors, wainscots, and mouldings of chimneys are made of the wood, and shingles have been made in some States. These shingles are preferred by some to pine, because they are more durable and not likely to crack from the effects of intense frost and sunshine. Lumber sawed from this tree is used in all the principal cities for the panels of carriages. When perfectly dry they take paint well, and admit of a brilliant polish. It enters largely into coach manufacturing, and is used in cars, waggon-boxes, sleighs, etc. It is particularly applicable to any work requiring soft wood easily worked, and not requiring great strength, especially if wide work is desirable. It was used years ago in large quantities in the manufacture of trunks, which were covered with cloth or skins. Large quantities of tables and bedsteads have been made from this wood. They are usually stained to imitate mahogany. It often enters into the construction of bureaus and general cabinet work, particularly where it is the base for covering with veneer. It has been used also in the interior work of canal boats and steamboats. As it is easily wrought in the lathe, it is often used for bowls, brush and broom handles, and numerous other articles of turned wares. Farmers construct eating and drinking troughs for their animals of the wood, as it stands long exposure to the weather better than chestnut and butternut. It is used also in bridges in some places. The Indians were wont to make canoes from the big trees, and some of them had room for twenty or more persons. In some parts of the country long lines of fences may be seen that are made of rails of this tree. One-third of the lumber used in making coffins in New York city is whitewood, it being used for the sides and tops. Very large quantities are consumed in the backs and legs of pianos. Furniture manufacturers use it for ebonizing, and in parts where great strength is not required. A manufacturer of bungs in New York uses 500,000 feet annually, and it is also used largely in making toys and pumps. It has been used to some extent for flooring, and quite extensively for mouldings and trimmings.

TREE PLANTING.

The following extracts from an appeal to the people to the people of Manitoba by Mr. H. P. Bonney, now of Hamilton, Ont., are well worthy of attention by the farmers of Ontario. We are fast making our country a treeless prairie, and already need to take up the subject of tree-planting in good earnest:—

It is now over two years since I first devoted my attention to the subject of tree-planting, and the more I learn of it the more I become convinced of the necessity of some means being taken to get our farmers to take a like interest in arboriculture, and I am sure that as soon as we all lay the matter to heart it will not be long before quite a change for the better in the appearance and climate of our country will take place, and our prairies will be more beautiful both to the eye and feelings than they are at present. Our timber, in fact all the timber of the North American continent, is rapidly being used up. It is not 400 years yet since Columbus first landed at San Salvador; yet in that comparatively short space of time the forests of America have dwindled down to one-fourth their original size, and as our population increases the consumption becomes more rapid, and unless we set to work energetically, and at once, to plant trees, it will not be many years before our forests will be things of the past, and how shall we manage then? We want shelter from such storms as the one that caused such loss of life in the Northwestern States in January, 1873. (Remember that storm passed over Manitoba, too.) We want to see our grain stand up instead of lying down, as it only too often does now-a-days. We want to get rid of our hail storms and check the progress of the insatiable "hopper," and tree-planting is the only remedy for all these evils.

To surround ourselves with trees will make us happier, richer and better—for man generally feels a better man when living in the midst of beauty than he does when living in a flat, monotonous plain.

A HIVE OF INDUSTRY.

A correspondent writes as follows to the Ottawa *Free Press*:—Taking Pooley's Bridge as a starting point, we pass a strong built building containing the gigantic water works surrounded by massive stone walls, sending forth from 8,000,000 to 10,000,000 gallons of water pure water to all parts of the city annually. Approaching towards the Chaudiere Falls between the hours of 12 and 1 p.m., we notice a large number of workmen returning to their labor, smoking the proverbial tobacco pipe and whiling away the hour allowed for rest and mid-day meal. The various mills are now in active operation; those for the manufacture of lumber belonging to the enterprising firms of Messrs. Perley & Pattee, Bronsons, Baldwins, Booths, and Young, and the flour mills of Messrs. Thos. McKay & Co., and Thompson & Son. The lumber mills, including Eddy's, turning out from 180,000,000 to 200,000,000 feet of lumber annually, with all their surroundings of tram-platforms, substantial vehicles, teams, &c., conveying the wooden goods to the piling places ready for shipments, carts drawing away the unmerchantable wood for fuel; altogether presenting a lively, busy scene. Crossing the suspension bridge, where a fine view is obtained of the Chaudiere Falls, the river, and the city of Ottawa in the distance, we enter the town of Hull, where Eddy's extensive lumber mills, match and woodenware factories are situated, with all their surroundings of machine, workshops, etc. This establishment was the first to adopt the electric light system to illuminate and facilitate the night work operations, which has been followed by the proprietors of several other mills in this vicinity. These various mills, factories, foundaries, etc., give employment to from 3,000 to 4,000 hands, with a capital invested therein of several million dollars. The above gives but a brief and faint idea of the manufacturing industry of the city; many other mills, etc., being located at different points around the city, but time and space precludes further descriptive details for the present.

THE Belleville *Intelligencer* says that on the night of Thursday, June 1st, about five o'clock the boom above Baker's Island, containing 10,000 of Gilmour's logs, was broken by the wind, and the logs were scattered in all directions. Five thousand of them were secured during the night, and the remainder drifted down the bay. The water in the vicinity of the city next afternoon was covered with floating timber, which interfered with the navigation of the ferry steamer.

TIMBER LIMITS HOLDERS' ASSOCIATION.

The Montreal *Gazette*, of June 8th, says :—A special meeting of limit holders, bankers and others interested in the tenure of timber limits in this Province, convened by the Timber Limits Holders' Association of the Province of Quebec, was held in the hall of the Corn Exchange yesterday at 1.30 p.m.

The following gentlemen were present :—Messrs. W. G. Perley, J. R. Booth, E. B. Eddy, E. H. Bronson, James Gordon, Oliver Latour, Allan Grant, Chas. Smith, Alex. Fraser, Allan Gilmour, Ottawa; Andrew Thompson,—Kirkey, J. Price, Jas. Ross, G. B. Hall, P. P. Hall, H. Atkinson, J. Breakey, John Breakey, E. Benson, T. Girouard, Peter McNaughton, John Welsh, John Gilmour, Quebec ; F. Wolferstan Thomas, Geo. Hague, Hon. John Hamilton, Thomas Workman, J. K. Ward,—Grendy, J. Macdougall, G. Giroux, J. Macnider, Montreal ; A. Baptist, Three Rivers.

Mr. W. G. Perley, of Ottawa, having been called to the chair, said that the object of the meeting was to take into consideration the late act passed by the Quebec Legislature.

The Secretary having read the notice convening the meeting,

Mr. Andrew Thomson moved the following resolution, seconded by the Hon. John Hamilton :—

That the Association be composed of limit-holders, bankers, corporations, and others interested in the security of the tenure of limits.

That the object of this association is to secure the united action of all interested in the tenure of limits, for the protection of their rights generally, and for mutual assistance in promoting the interests of each individual member thereof.

That there shall be elected a President, Vice-Presidents and a council of seven, who shall employ a secretary and be empowered to administer the business of the Association.

That at all meetings of said Council three members thereof shall constitute a quorum.

That the annual subscription shall be $10 for each member.

That the Council, should the emergency arise, have the right of levying a contribution per square mile on limits at the rate of and not exceeding : On pine limits valued at $200 or upwards per square mile—$1 per mile. Pine limits valued at less that $200 per mile—50 cents per mile. Mixed pine and spruce limits, 50 cents per mile. Spruce limits only, 25 cents per mile.

That the valuation of limits for the purpose of assessment be established by the council.

That the annual meeting be held on the first week in August of each year alternately in the cities of Quebec and Ottawa, when the President, Council and officers shall be elected by ballot, and that reports of the Council of the preceding year be submitted.

That any firm, corporation or banking institution having an interest in licenses may be represented by not exceeding five members of such firm, corporation or banking institution, who shall be entitled to vote, having paid their annual fee.

That the President or Vice-President and any two members of the council shall be empowered at any time to call a special meeting of the Association, should the occasion in their opinion require it.

Mr. Thomson, at the request of the Chairman, rose to explain to the meeting the objects of the movement, and also as to what had already been done. He thought the resolutions were very explicit. The real matter now before them was the appointment of a suitable committee to work at and endeavor to accomplish all that the limit holders at present desired, more especially to give their licenses a title, which had recently been seriously injured by the action of the Legislature. He thought such could be accomplished, though were he to give them his view as to by what means, he was afraid he might defeat the very object they had in view. It was one of those things that would have to be done by a few men and not by a great number or by an individual. He felt confident from what he had learned from some of the leading members of the Dominion and local cabinets that something of the kind would be done—something of the nature of a statute that would give their licenses a title. It was important that they should appoint the best men they could select to set about petitioning the Legislature in the matter of the act as it stood. He thought there were some mistaken views afloat about it. He did not himself think that in its present form it would occasion any serious loss to lumbermen, or that it would seriously interfere with their operations, but it certainly had injured the title to the licenses. If, for instance, a man wanted to sell his licenses or to pledge them as security the title had decidedly suffered by the action of the Government. He believed they might be satisfied to let it rest as it stood, provided that they could get some legislation on the title.

Mr. Geo. Hague asked whether it had occurred to those who were initiating the movement that there was a power conferred upon the Dominion Government by the constitution, of disallowance of acts passed by the Provincial Legislature, and whether they would consider the advisabily of asking that that power be exercised. There had been such an exercise during the past year, and he noticed in a statement of Sir John Macdonald's made recently, giving the reasons for such, that he emphasized the fact that the bill in question passed by the Legislature of Ontario would seriously affect the rights of property, that the rights of property were sacred, and that no legislation should ever be suffered to interfere with them. In the present case there was very plainly an interference with the rights of property, though probably, as they had heard, there might not be much practical interference with the actual working of the lumber business for some time to come. But with respect to the value of property, the power of disposing of property or of giving security for money bonds on property, all those questions were very seriously involved. It was a matter for serious consideration whether the Dominion Government should not be approached and an endeavor made to induce them to exercise their power of disallowance.

The resolution was then put to the meeting and agreed to, clause by clause.

On the suggestion of Hon. John Hamilton the following clause was added :—

That not exceeding one member of any firm, corporation or banking institute shall be eligible to election as a member or officer of the Council.

Mr. E. H. Bronson, of Ottawa, also moved the addition of the following clause :—

That it is desirable that the President to be elected shall be a resident of Quebec, and the Vice-President a resident of Ottawa ; and the Council shall be constituted of four members from the Quebec and Three Rivers District, and of three members from the Ottawa District.

At Mr. Thomson's suggestion the following clause was also added :—

That the President, Vice-President and Council shall have power to fill any vacancies that may occur in their board from time to time.

It was moved by the Hon. John Hamilton, seconded by Mr. P. McNaughton, "That the sincere thanks of this association are due and are hereby tendered to the Legislative Council of Quebec for their prompt and energetic action in protecting the vested rights of property."—Carried.

A vote of thanks to the editor of the Quebec *Morning Chronicle*, for his able advocacy of the rights of the limit holders, in the columns of his paper was unanimously passed.

The election of officers by ballot was then proceeded with, Messrs. McNaughton and Eddy acting as scrutineers. The result was as follows :—President, Mr. Andrew Thompson ; Vice-President, Mr. W. G. Perley. Members of Council—Messrs. T. Girouard, A. Baptist, J. King, P. McNaughton, Quebec ; Peter White, Pembroke ; E. H. Bronson, Ottawa ; Hon. John Hamilton, Hawksbury.

A vote of thanks to the Corn Exchange having been passed for the loan of the room in which the meeting was held,

Mr. E. H. Bronson was desirous that it should go forth to the public that they were not opposed to *bona fide*, legitimate settlers, and that in advocating what they felt to be their own interests in the matter, they were really advocating what were actually in the interests of the public.

The speaker alluded at length to the undesirability of ceding timbered territory to railroad companies, and thought it would be well if the Council were to press on the Government the desirability of isolating all sections of country that were purely timbered sections, for the purpose of harvesting the timber, so that revenue to be derived from the proper use of that timber might not be lost to the province. There were agricultural lands within the bounds of the province that were not pine lands, that were amply sufficient for the wants of the average settlers, and by keeping settlers absolutely out of the timbered sections, the timber might be preserved until it was harvested in the proper manner.

A vote of thanks to the chairman terminated the proceedings.

DIACHROMATISED WOOD.

The *Timber Trades Journal* says we had an opportunity this week of examining, at the Cannon Street Hotel, some specimens of a new process of wood decoration, styled "diachromatised wood," the patentee of which, Mr. Henry Chalk Webb, of Worcester, is about to transfer his useful invention to a limited company, the prospectus of which appears this week in our advertising columns. The invention consists in producing patterns on wood and other materials by injecting colours, which has the effect of inlaying or painting, and for flooring, dados, and other decorative purposes, it appears to be highly applicable. One great merit of the invention, apart from its beauty and inexpensiveness, is the fact that the colour being forced into the wood, under pressure, is not likely to be obliterated by any amount of wear which it might be subjected to ; indeed, some specimens of flooring blocks of pitch pine, about one inch in thickness, which we examined, were completely soaked through, although we understand that for dado and wall purposes it is found sufficient to force the colour in about one-sixteenth of an inch. It appears to us that the process is most successful in using the darker colours, such as those which are employed for producing on a piece of common fir the effects of inlaying in walnut, dark oak, mahogany, &c., while the treatment of the lighter coloured woods, such as sycamore, satinwood, &c., with such colours as pink and blue, does not produce such a real or artistic effect. This remark, however, does not apply to a remarkably handsome piece of wall dado, prettily made of American walnut, satinwood, and bird eye maple, "diachromatised" in mauve, black, and other colours, in a florid, artistic pattern, and having all the appearance of a good specimen of inlaid work.

For public halls, churches, libraries, and also private houses, we should say that this invention only requires to be known to acquire great favor with the public. We may add that amongst the directors we notice the names of several gentlemen well known in the timber trade.

A FORESTERS' JOURNAL.

Notwithstanding the vast importance to the people of the United States of the question of forestry, it has hitherto, or until very recently, received an inconsiderable amount of attention, particularly from the daily press and publications not specially devoted to such industries as have wood for a basis. Of late, however, and especially since the late forestry congress in Cincinnati, both the press and people have evinced a much deeper interest in the subject. In every section of the country the danger is evidently becoming apparent, that the reckless destruction of timber which has hitherto characterized our history, if persisted in further, will utterly denude our forests and be the source of incalculable and irreparable loss. So apparent has this become, and so great is the desire for information on the subject of forestry, that the necessity for a periodical devoted specially thereto has presented itself, and we are glad to chronicle the fact that Dr. Franklin B. Hough, chief of the forestry department of agriculture at Washington, has undertaken to supply the deficiency. An exchange says, in reference to this subject, that a journal devoted to the dissemination of such information will have a wide field before it and may do a good work. The education of the people [on this question, just begun by the agitation of those interested in forestry, ought to be carried forward ; and the periodical is now one of the most successful of educating influences. The efforts of a few enthusiastic advocates of a forestry system have awakened the country from its past apathy, and there is scope for the talent which will be attracted to this new phase of the subject, in forming and directing public opinion as to the future course of a work of national importance and dimensions. Dr. Hough's general information on the subject of forestry, acquired by years of research and study, especially adapt him for the work he has undertaken. His qualification for the self-imposed duty are not surpassed by any writer on forestry on the continent. His name will be a tower of strength and influence in the outset, which will give the publication a boom which will carry with it an insurance of success. —*Lumberman's Gazette.*

THE FRENCH TIMBER TRADE.

La Gironde (Bordeaux) of 22nd May, makes the following observations with regard to the different descriptions of wood goods :—

HOUSEBUILDING.—The principal feature in this branch which at present has attracted the greatest attention is the chartering, and several more vessels have been chartered, some easily, others with difficulty, amongst which we may mention several steamers from the Bothnian Gulf at current rates and usual conditions. The treaty of commerce with Sweden and Norway has now come into force, and flooring boards have to pay duty in consequence, from which circumstance the consumer must pay a higher price on the square metre.

Canadian news received this week reports that the spruce stocks are very firmly held.

The arrivals of late have been very few ; one from Gothenburg, one from Fredrikstadt, and two from Dantzic.

The French steamer *Panama* has been chartered from St. John for Havre, St. Nazaire, or Bordeaux, with deals, at the low rate of 53s.

STAVES.—The usual market of St. Fort, although not having the same importance as before the ravages of the phylloxera, has been larger this year than during any of the latter ones. The business done has been on the whole satisfactory, and a very good tone seems to pervade the market. This improvement was much needed, as the market went down every year since 1876, when stocks were large and the consumption small. At the present stocks are very small, and with a restricted importation one has every hope to look forward to an improvement, provided the vine harvest proves good this year.

The Austrian shipments to this place have been very few during the last two months, and will be the same during May. At present there are no arrivals to announce. Freights, 6 to 6.50 fs. per hundred per sailing vessel, and 20 to 22 fs. per ton by steamer.

DECAY OF THE SPRUCE.

The following letter appears in the Montreal *Witness* :—

SIR,—I have read carefully the letters of Messrs. Hall and Rose in your valuable paper regarding the decay in spruce trees. The spruce in this part of the townships are also suffering from the same seemingly unknown disease, and the letter of Mr. Rose explains exactly what is taking place here. When the trees show the first symptoms of decay a small worm is noticed between the bark and the sapwood, and where these worms are found the bark in peeling time adheres firmly to the tree. Whether these worms are the cause of the trees dying I cannot say. It is certain, however, that fully one-third of our best spruce timber is already dead and useless, and the disease is still spreading. This will be a great loss to owners of wild lands in the Dominion, as spruce is now becoming as valuable as pine was some twenty years ago. The same disease seems also to be attacking the hemlock, though as yet to a less extent.

W.

Kingsbury, P.Q., June 2nd, 1882.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly as to its wonderful effects.

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CAR WORKS.

A *Sun* reporter who casually called at Messrs. Jas. Harris & Co's car works lately was allowed an opportunity of inspecting some of the new machinery and appliances recently added to that extensive establishment, and the introduction of which has enabled the firm so to increase their facilities that they are now able to turn out two first-class passenger cars a month and four freight cars a day. The machinery which has been lately introduced consists of a new band saw (made by the firm), a nest of six emery wheels, a saw gummer, an automatic planer knife grinder, and a new planer and matcher. In another part of the works was seen a shaving machine, which is commonly known as an irregular moulder; a planer, (that will plane a stick 16 in. square by 40 ft. long,) the only one of like capabilities in this city, a morticer and double borer, and a gaining machine, a most ingenious contrivance, of the invention and manufacture of Messrs. Harris & Co. The machinery above enumerated has been mostly made by the firm on their own premises, and has been recently put in position to meet the requirements of their largely increasing business. To meet the consequent extra demand for power the proprietors have built a 40 horse power engine (which was constructed and in full operation within four weeks from its commencement), and have been supplied by Messrs. McLaughlin with a new boiler. This driving power is used exclusively for the car works.

To turn out such a large number of cars as the capacity of the works will allow, Messrs. Harris & Co. give employment to fifty hands. The cars at present in hand consist of two first class passenger cars for the Grand Suthern Railway, one passenger and one mail car for the Quebec and Sorel Railway, and two hundred flat cars for the Canadian Pacific.—*St. John Sun.*

WOOD PULP.

The mills of the Canada Paper Company at Windsor add to the old process of producing paper from rags and ropes the extensive production of paper pulp from wood by a chemical process. The wood is cut by a powerful rotary machine into chips, which are shovelled into immense revolving boilers, where they are boiled with a mixture of soda ash and water, previously prepared. The boiled mass comes out thoroughly reduced to soft pulp, the rosins and other ingredients of the wood, except the fibre, having passed into the liquor. This black liquor is then passed into an oven of enormous size, where it passes down, as it were, from story to story, and finally over a long bed of coals. Here it is dried away and burned; everything that is not soda ash is turned into vapor, and the vapor is consumed by flames passing over the surface of the mass. The soda ash then becomes again fit for use. The pulp is secondly washed with water, and the product is used for the first washing of the next lot, and finally with water again, the product of which is drained away. The pulp then goes through a complicated process of straining, and bleaching with chlorine, when it is ready to mix, in proper proportion, with other stock. The pulp made from wood by this chemical process is much better than what is merely ground. Mr. Angus of the Canada Paper Company, is erecting pulp mills at Angus on the Quebec Central, where he expects to prepare that article for the paper mills of the Dominion. It seems strange that Canada should not long ago have become an exporting country for what now is a large article of commerce and one she is so peculiarly well circumstanced to produce.—*Montreal Witness.*

Chloride of Lime for Trees.

Le Cultivateur, a French journal, says that if chloride of lime be spread on the soil or near plants, insects and vermin will not be found near them, and adds:—"By its means plants will easily be protected from insect plagues by simply brushing over the stems with a solution of it. It has often been noticed that a patch of land which has been treated in this way remains religiously respected by grubs, while the unprotected beds all round it are liberally devested. Fruit-trees may be guarded from the attacks of grubs by attaching to their trunks pieces of tow smeared with a mixture of hogs' lard, and ants and grubs already in possession will rapidly vacate their position. Butterflies, again, will avoid all plants whose leaves have been sprinkled with lime-water."

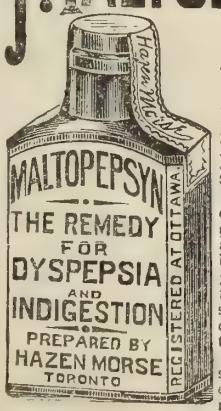
Tree Growth.

Careful observations have shown the following to be about the average growth in twelve years of several varieties of hard wood when planted in groves and cultivated: White maple becomes one foot in diameter and thirty feet high; ash-leaf maple or box elder, one foot in diameter and twenty feet high; white willow, eighteen inches in diameter and forty feet high; blue and white ash, ten inches in diameter and twenty-five feet high; black walnut and butternut, ten inches in diameter and twenty feet high, yellow willow, eighteen inches in diameter and thirty-five feet high; Lombary poplar, ten inches in diameter and forty feet high.

MALTOPEPSYN

AN

Artificial Gastric Juice.



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Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

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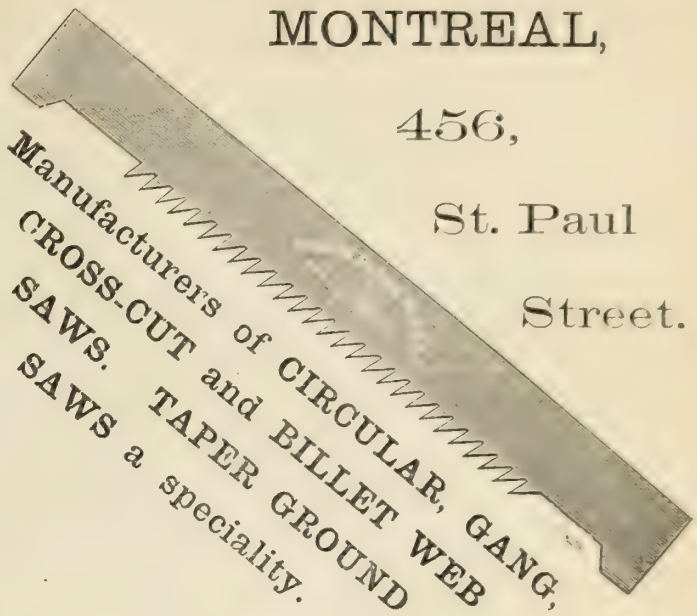

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THE UTILITY AND BEAUTY OF TREES.

The following address of the Hon. George B. Loring, United States Commissioner of Agriculture, was delivered before the American Forestry Congress, at their recent meeting in Cincinnati, Ohio :—

GENTLEMEN,—I have accepted your invitation to be present on this occasion and to preside over your deliberations, not because I feel competent to instruct in the art of forestry, but in order that I might assure you of the sympathy of the Agricultural Department of the Government, and of my own estimate of the value of your work. The question of forestry is one of the most intricate and difficult of all the agricultural problems which come before us.

That our forests are wasted by reckless extravagance and by uncontrollable conflagrations; that they are diminishing before the immense demands upon their products, we all know. Their importance as a climatic influence is conceded. The profit of tree-growing on wisely selected lands is acknowledged. But the methods by which our forests can be restored and preserved still puzzle the statesmen and the cultivator alike. The nature of property in timber lands as adjusted for the State and the individual, in all those countries where the forests have attracted the special attention of the Government, particularly in the Old World, has so much of exclusiveness and reservation for the gratification of personal desires, that we can derive but little benefit from its study. The rights and powers and duties of State and Federal legislation, as regards our forests, require the most careful and ingenious consideration. We learn from the statistical returns the vast value of forest products to our commerce, to our domestic manufactures, to our internal trade. And by constant investigation we are ascertaining the best systems of tree-planting, and of cultivating specific wood crops in favorable localities. You will parden me, therefore, while I leave all these difficult, practical problems for the consideration of those who have brought here the result of long study and experience, and turn my attention to the value and

IMPORTANCE OF TREE CULTURE

as one of those arts by which man beautifies his abode, and manifests that taste which especially distinguishes him in the scale of animate being, and which he labors to gratify as soon as he has laid the hard and substantial foundations of State and Society. Men build first, and then plant. The primary work of erecting an empire, in which all the sturdy virtues are called into operation, and where courage fixes the national power, and wisdom establishes the national education, is not a field for the exercise of man's love for the beautiful. With the wars and the felling of the forests, and the log cabin and primitive school house of a newly-settled country and a newly-founded empire, taste has but little to do. But when safety and property are made secure, and the highways are well worn, and the skill and strength of the cultivator have stripped the landscape of its natural beauty, and the foot of man has trampled out the graceful lines in which nature always works, then there uprises man's demand for the beautiful, and he endeavors to restore by art what he was obliged to destroy for his subsistence. For whatever may be his outward circumstance, however hardening and depressing may be the incidents of his life, man has an instinctive love of beauty, which insists on being gratified. He knows that this is his distinguishing characteristic which separates him from the beasts that perish—an element of his mind and heart which leads him "from nature up to nature's God." To him the sunrise means glory as well as daylight. The lone and lofty mountains elevate him to the contemplation of the Almighty power, even while they are "a shelter to the wild goats;" and the dewy pastures where the cattle graze and recline in the long shadows, lull him to the sweets of evening repose; the sparkling stream, "where the wild asses quench their thirst," will soothe and sing him to happiness and rest. The majestic and commanding tree, whose widespread branches shelter the panting animals from the blaze of the noon-day sun, is a picture of power and strength and varying loveliness, which is to him a source of never-ending delight. When his eye surveys the swelling landscape, the emotions which belong to him as a child of the Creator of all, inspire and elevate him above the earth on which he treads, and distinguish him from that other order of animal existence, to which all scenery is alike, whose sensibilities no ugliness of nature or art offends, which no starry heavens delight, and no homely surroundings disturb; whose vision is blind both to the graces and deformities of even its own kind, which nibbles the daisy and the June grass with equal satisfaction, and whose soul "cannot rejoice with those who rejoice, nor weep with those who weep." It is man alone who knows that "a thing of beauty is a joy forever."

TASTE IN TREE PLANTING.

It is in accordance with this sentiment that man has applied his skill and taste to the creation of all the charming scenery of groves and bowers and gardens, and to the enhancement of natural beauties themselves. Great gardens of antiquity, the monstrous towering pleasure grounds of Rome and Babylon, set an example which advancing civilization has not failed to follow. The cultivation of parks and gardens constitutes one of the most interesting and important duties of modern art—a duty in the faithful performance of which England has set an admirable example. Leaving, in the early part of the eighteenth century, the formal and heavy style then in vogue, through the influence of some of her most illustrious poets—Addison at Bilton, and Pope at Twickenham—the English people revolutionized the whole system, and established that classical style of planting which has since been so much admired and imitated throughout the most refined parts of Europe.

The science of landscape gardening, which advanced so slowly in the Old World, and the proper system of constructing a city with light and water, and parks and shaded streets, which was so shamefully neglected until a comparatively recent period, have until within a few years been entirely overlooked in our own country.

When more than seventy years ago the city of Cincinnati was founded and the spot was chosen on which has been erected such a splendid array of public buildings, private dwellings, music halls, art galleries, churches and libraries, the application of art to the arrangement of gardens, parks, streets and highways, was hardly thought of. It was enough to clear the land and till it, without converting it into a pleasing picture. It was all the early settlers in our country could do to blaze a path in the forest without considering how best to crown and drain a highway, and it was not until after the Revolutionary war that the planting of trees and shrubs was made a necessary part of the laying out of gardens and grounds. I remember well the only garden in the State of Massachusetts, laid out early in this century by an English gardener, and kept in good order until within a dozen years, an object of delight to all who were allowed to enter its sacred inclosure and perambulate its well-visited walks. Such a scene as this was rare. Public spirited citizens planted avenues of trees in highways, and were considered benefactors. Here and there a "door-yard" was ornamented with a clump of lilacs and syringas, but nowhere, that I am aware of, were there associations of enterprising and tasteful citizens organized for the purpose of adorning their towns and of providing for the health and comfort of themselves and of the community of which they form a part. It remained for our own generation to unite for so laudable a purpose; and I congratulate this beautiful city that its natural comeliness has been enhanced and its suburbs made delightful by the combined efforts of those who believe that a love of beauty is a human attribute, and that we are under a sacred obligation to preserve that health which is given us for a high and useful purpose. The practical service of an association like this, as I have said, it is not necessary for me to discuss here, in the presence of those who know by experience how trees and shrubs should be grouped; who have learned that an evergreen should be transplanted in August, and that a little lime and muck applied to the roots when it is planted will give it a wonderful stimulus; who understand that a plantation of trees should be made to suit the building it is to surround and the landscape it is to occupy; that trees should not be planted too near a building, or too near each other; that the plants nearest the house should be low in stature and of a beautiful sort; that the shades of green should be properly blended, and the foliage selected accordingly; that trees should be protected by each other against those winds which are obnoxious to them; that the Norway will not bear the rough gales from the sea, and that the Scotch pine rejoices in them; that trees and plants should not be "marshalled in regular order and at equal distances," like beaux and belles standing up for a quadrille or country dance; that it is easier," as Downing says, "to make a tasteful park by planting new trees than by thinning out an old forest, and that nature herself is full of hints and suggestions," an observance of which constitutes the highest art of which man is capable in all that work of which earth, sea, and sky form a part. With all this you have long been familiar, as the practical part of a most agreeable labor; but for the trees themselves, these living monuments of nature's bounty, or of man's skill; those landmarks which we love to contemplate; those sentinels and armies along the landscape; those silent friends who somehow connect themselves with so many of the dearest scenes and events of our lives, and watch over the graves of the departed day and night, and through all the changing seasons—for the trees themselves let us say a word.

TREES FOR PROFIT.

And now, to him who, in a spirit of thrift and economy worthy of that people to whom as an American he belongs, would ask what is all this worth? let me say that the judicious selection and planting of trees may be made one of the most profitable branches of agriculture. Not for the beauty of the town alone, but for a thrifty use of remote and deserted acres also may the culture of trees be made a part of the business of life. A venerable clergyman in Massachusetts, the father of one of the most distinguished bankers in Boston, left at his death a large territory of woodland in the town which was blessed with his ministry for more than fifty years, and the profits on this land, which he had purchased at a very low rate at the beginning of his professional service, and which had been devoted to the growth of wood, principally pine, were greater than those realized on lands purchased and sold at the same periods in the most prosperous parts of Boston. "We have heard of a gentleman," says the author of Practical Economy, "whose lands were more extensive than fertile. whose practice was to plant fifteen hundred trees, on the birth of every daughter, upon his waste grounds, which were on an average worth one pound each on her becoming of age, thus enabling him to give her a fortune of £1,500 without any extraordinary economy on his part, the regular thinning of the trees at proper seasons, with barking, etc., paying off all the current expenses, besides yielding him a small rent for the land." The profits derived from the growing of the pine, the locust, and the birch, all capable of flourishing greatly in light and somewhat worthless lands, have been in many instances very remarkable. Perhaps I would not recommend the cultivation of wood and timber as a universal branch of agriculture in these days when the secret of the business lies in quick returns and devotion to local markets; but I can find in the experience of those who have tried it an encouragement to those who, by the possession of large tracts of waste lands, may be compelled to follow their example in the business of tree-planting; and I read with profound interest the statement addressed to Governor Foster by an enterprising citizen of this State, with regard to his success in tree-planting, and the groves of walnuts, maples and chestnut which he is cultivating with pleasure and profit.

In conclusion let me urge upon this Association the most careful consideration of the topics before it—the use of forests; the conservation of forests; the influences, injurious and beneficial of forests; the educational means by which we may become acquainted with Forestry work. To what extent can the land-owner enter profitably upon the business of tree-planting and forest culture? What legislation can the States best adopt for the increase and preservation of their forests? How shall the General Government provide for the planting of forests on its public lands? What is the precise extent of forest waste? What is the comparative value of various timber trees? How shall we secure wind-breaks on the prairies? By what chemical processes can we preserve our timber used in building and fencing? What forest trees are best adapted to various localities?—these are questions which should be answered as definitely as possible. They are questions which the American people are anxious to have answered, and before which all discussion of foreign legislation, all consideration of the value of wood products, all statistics of trade, all study of land tenure, sink into insignificance. I trust the deliberations of this convention will point the way by which these problems can be solved, and by which our vast forest wealth can be economically preserved and profitably used.

NEW JERSEY SUNKEN FORESTS.

There are in New Jersey, in the township of Dennisville, immense swamps partly covered by thick water weeds and white cedar, and partly by stumps and fallen logs of immense size, which are merely surface indications of wealth below, which consists of sunken forests, of which an exchange gives the following account: These huge trees which lie under swamps to unknown depths are of the white cedar variety, an evergreen known scientifically as the *Cypressus Thyoides*. They grew years ago in the fresh water, which is necessary for their sustenance, and when, either by a subsidence of the land or a rise of the seas, the salt water reached them they died in great numbers. But many of them, ere they died, fell over as living trees, and were covered slowly by the desposits of muck and peat which fill the swamps. These trees that fell over by the roots are known as windfalls to distinguish them from the breakdowns. The trees which broke off are the ones most sought for commercial uses, and they are found and worked as follows: The log digger enters the swamp with a sharpened iron rod. He probes the soft soil until he strikes a tree, probably two or three feet below the surface. In a few minutes he finds the length of the trunk, how much still remains firm wood, and at what place the first knot, which will stop the straight split necessary for singles, begins. Still using his prod, like the divining-rod of a magician, he manages to secure a chip, and by the smell knows whether the tree is a wind-fall or breakdown. Then he inserts in the mud a saw, like that used by ice-cutters, and saws through the roots and muck until the log is reached. The top and roots are thus sawn off, a ditch dug over the trees, the trunk loosened, and soon the great stock, sometimes five or six feet thick, rises and floats on the water, which quickly fills the ditch almost to the surface. The log is next sawn into lengths two feet long, which are split by hand and worded into shingles, as well as into the staves used for pails and tubs. The wood has a course grain, and splits straight as an arrow. The shingles made from it last from sixty to seventy years, and are now eagerly sought for by builders in Southern New Jersey, and command in the market a much higher price than the ordinary shingles made of pine or chestnut. In color the wood of the white cedar is a delicate pink, and it has a strong flavor, resembling that of the red cedar used in making lead pencils. The trees once fairly buried under the swamp never become waterlogged, as is shown by their floating in the ditches as soon as they are pried up, and what is more singular, as soon as they rise they turn underside uppermost. These two facts are mysteries which science has thus far left so. The number of trees which lie below the surface of the ten square miles of swamp is almost numberless. In many places the probe will not be sunk many times before it fails to strike a log. As the workmen only dig for those near the surface, and none but the best trees are selected, it is certain that only a small fraction of the logs have been exhumed since 1812, when the industry first sprang up. The sunken forests lie in all shapes. Sometimes the trees are found parallel, as though a wind blowing from one quarter had felled them, but usually they lie pointing in every direction, and when

as occasionally happens, the wet soil sinks or dries, the mighty trunks are seen piled upon each other as in a Maine log jam. It would be impossible to make even an approximate estimate of the vast amount of timber contained in these veritable "timber mines," suffice it is to say, there is as yet hardly a perceptible sign of any diminution of the supply.—*Buffalo Lumber World.*

LUBRICATING BEARINGS.

Lewis F. Lyne, in the *American Machinist* says: "I remember, some years ago in a mill there was a wall-box supporting a five-inch shaft which would get hot and remain so in spite of all efforts made to cool it. Oil, sulphur and tallow, water, were each used in great abundance, but still the journal refused to surrender. Finally, one night I raised the shaft and removed the composition box, and had it carefully cleaned. The shaft having also been cleaned, a very light film of lamp black was gently rubbed over it. This test revealed the fact that the bearing was all right so far as fitting was concerned, but the surface of both the shaft and box were rough, and the skin ef the metal disturbed. The load upon the bearing being heavy, it was sure to heat. I obtained some pure flake graphite, and having melted a pot of pure tallow, I stirred in a liberal dose of the graphite. The box having been replaced, both bearing surfaces were covered with the mixture of graphite and tallow, and the shaft lowered to its place. In the morning, when the machinery was started, the box warmed up about to blood heat and remained so for several hours, after which it cooled down and gave no more trouble. In a few days it was examined, when the surface was found polished like a looking glass. The graphite had become imbedded in the pores of the metal and formed a very fine wearing surface, which ran with every little friction. I have since made use of this mixture for cooling heavy journals and have always found it successful."

ROADSIDE TREES.

The *Country Gentleman* says:—Objections are sometimes raised against tree planting on the roadside, preventing, as is claimed, any drying of the road bed. This would be a small objection on a well drained road. The planting of shade trees on the roadside is very generally conceded to be an improvement to both the road and adjoining property. Particular avenues of well-grown trees often gain world-wide reputation. There are many kinds of trees suitable for roadside planting, but for a select list the following are reliable, given in succession according to their merits:

White elm, tulip, scarlet maple, Norway maple, hard maple, horse chestnut, catalpa (*speciosa*), chestnut, white oak and English elm. The tulip, hard maple, and chestnut require a naturally deep, well drained soil in order to thrive. The best effects are obtained by planting one kind for long distance, and neighbors should club together and decide on a tree, and have no other planted in a section of road. Apple trees are very objectionable for this purpose, being naturally low and spreading. The continued trimming up required to keep the branches out of the way soon ruins them. Fruit trees are out of place on the roadside. The proper distance for planting is eight to ten feet from the line and thirty feet apart. Trees should be well protected by stakes or boxes for a few years. Nursery-grown trees are the cheapest in the end.

An Important Sale.

The Mackinaw Lumber Company has sold the cut of its mills at St. Ignace and at Black River for the season of 1882 to the Bogue-Badenoch Company, and another party on private terms, the sale covering every stick of lumber manufactured in both mills, or 25,000,000 feet—one of the largest sales thus far reported. A man will be sent to St. Ignace in the interest of the purchasers to look after the local trade. The sale does not cover the lumber on the dock of last year's cut.

THREE requisites—pens, pins and needles. The latter you can get of any makes, but when you want a good pen get one of Esterbrook's.

A BIG SMOKE STACK.

The *Lumberman's Gazette* says the new smoke stack recently erected by the Dubuque lumber company to make a suitable draft for the furnace was fully tested yesterday. It starts horizontally from the boilers, runs along the bluff and terminates on top of the bluff, a distance of 430 feet, the longest and largest smoke stack in this state without doubt. Sheet iron five feet in diameter is used from the boilers to the bluff, where brick masonry commences up the incline until the brow of the bluff is reached, where a tall sheet iron stack tops out the structure, making a draft of 480 feet. The suction is enough to haul up a small man, and the fireman has to be weighted down when venturing near the furnace door, to save himself from going up the spout. Sawdust burns fiercely, and sparks and cinders are carried to the sky. The improvement fully meets expectations, and will prove to be a paying investment in the matter of fuel alone.

Pulp Paper Process.

The methods of manufacturing paper from wood are being revolutionized. One Stephen M. Allen has invented a machine which dispenses with the beater and other apparatus heretofore in use, so that wood, sizing and other necessary material is by one operation ground, beaten and delivered to the paper machines requiring, as is claimed, but five minutes to convert the wood in its stick form, with the other essentials, into a sheet of dried white paper Commonly wood-grinding has been a separate enterprise, pulp-mills being established to make the material for the paper men, who bought it already prepared, mixing it with rags and other material, and after proper manipulation running it off on to paper machines, which shows the greater economy and increased efficiency of the new device.—*North Western Lumberman.*

Disappearance of Forests.

In some cantons of Switzerland, says the *Lumber World*, there is a law forbidding the destruction of a tree without planting another to take its place. The law is an outgrowth of necessity. It has been scientifically demonstrated that the increase in violent storms, inundations, and landslips in Switzerland, scattering death and destruction on all sides, is due to deforesting the mountains. Gradually the timber has disappeared, until little remains except on the high slopes of the mountains, and that little is of inferior size and quality. Unless the process is arrested the mountains of Switzerland will present as bald an appearance as those Alps that divide France and Italy, and nothing more desolate and drear outside of the steppes of Asia or the desert of Africa presents itself to the eye of the traveller.

A TELEGRAM from Ottawa says:—The limit of fifty square miles on the Kippewa, owned by the Messrs. McMaster, of Toronto, was recently purchased by Mr. Oliver Latour, the price paid being $20,000. The same gentleman also purchased two limits of ninety-six square miles on the same river from Mr. James Ross. $40,000 was the amount paid. Mr. Latour has sold his Deep river limit of sixty square miles to Messrs. Bronson & Weston.

$200.00 Reward!

Will be paid for the detection and conviction of any person selling or dealing in any bogus, counterfeit or imitation Hop Bitters, especially Bitters or preparations with the word Hop or Hops in their name or connected therewith, that is entended to mislead and cheat the public, or for any preparation put in any form, pretending to be the same as Hop Bitters. The genuine have a cluster of Green Hops (notice this) printed on the white label, and are the purest and best medicine on earth, for Kidney, Liver and Nervous Diseases. Beware of all others, and of all pretended formulas or recipes of Hop Bitterf published in papers or for sales as they are frauds and swindles. Whoever deals in any but the genuine will be prosecuted. Hop Bitters Mfg. Co., Rochester, N. Y.

YOUNG MEN suffering from early indiscretions lack brain and nerve force, Mack's Magnetic Medicine, advertised in another column, supplies this want and cures when all other preparations fail.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

Simcoe House,
CORNER FRONT and SIMCOE STS.
TORONTO, ONT.
Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms
The Most Convenient House to all Trains.
1L21 GREEN & SON, Proprietor.

The American Hotel,
BARRIE, ONT.
Collier Street, Adjoining the Market.
RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
Every accommodation for Commercial and LUMBERMEN.
1Ltf W. D. McDONALD, Proprietor.

J. K. POST & CO.
LUMBER MERCHANTS
And Shipping Agents.
OSWEGO, N. Y.
1Ltf

CHOPPING AXES
(Made to Order and on hand.)
MILL PICKS DRESSED in a first-class style. Those shipped by rail will be returned promptly.
Lance Tooth Saws Gummed. AXES WARRANTED. 3L24
W. HERLIHEY, Lindsay.

FOR LUMBERMEN!
Poleroad Tramway Cars
Will Carry 2,000 Feet of Hardwood Lumber per Load
Drawn with one span of horses, either summer or winter, on Round Pole Roads, which are cheap and speedily built.
The woodwork of the Car can be built by any handy man in a couple of days. The undersigned supply the ironwork complete, including bolts and washers and a diagram of car.
The wheels are adjustable on its axles to accommodate itself to any bend in the pole. The weight of ironwork is 2,250 lbs. Price on application to
C. NORSWORTHY & Co.,
ST. THOMAS, Ont.
Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills.
L7tf

There is no excuse for suffering from
CONSTIPATION
and a thousand other diseases that owe their origin to a disordered state of the Stomach and Bowels, and inaction of the Digestive Organs, when the use of
DR. HENRY BAXTER'S
MANDRAKE BITTERS
will give immediate relief, and in a short time effect a permanent cure. After constipation follows Biliousness, Dyspepsia, Indigestion, Diseases of the Kidneys, Torpid Liver, Rheumatism, Dizziness, Sick Headache, Loss of Appetite, Jaundice, Apoplexy, Palpitations, Eruptions and Skin Diseases, etc., all of which these Bitters will speedily cure by removing the *cause*. Keep the *Stomach, Bowels, and Digestive Organs in good working order and* perfect health will be the result. Ladies and others subject to SICK HEADACHE will find relief and permanent cure by the use of these Bitters. Being tonic and mildly purgative they
PURIFY THE BLOOD
by expelling all Morbid Secretions.
PRICE 25 CTS. PER BOTTLE.
For sale by all dealers in medicine. Send address for pamphlet, *free*, giving full directions.
HENRY, JOHNSONS & LORD, PROPS.,
MONTREAL.

E. S. VINDIN,
Commission, Shipping, Forwarding and General Agent.
LUMBER MERCHANT
Office, Tempest's Block, Port Hope. 1L1

J. & F. N. TENNANT
Dealers in all kinds of
Lumber, Lath & Shingles,
Office, Union Loan Building,
Toronto Street, Toronto.
1L1f

17 YEARS' EXPERIENCE.
HOWIE'S DETECTIVE AGENCY
OFFICES, 32 KING STREET EAST
TORONTO, ONT.
All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward. 1yL5

ROBERT SMALLWOOD
MANUFACTURER OF
The Patent Lever Feed Shingle, Box Board & Heading Machine
(Always takes First Prize.)
Rotary Saw Mills
IN FOUR SIZES, and other
MACHINERY for SAW and GRIST MILLS.
SEND FOR CIRCULAR.
CHARLOTTETOWN,
1L29 PRINCE EDWARD ISLAND

UNION FOUNDRY
Union Street, - - - Carleton,
Warerooms, Water Street,
ST. JOHN, N. B.
Allan Brothers
(Late of Harris & Allen)
MANUFACTURERS OF ALL KINDS OF
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AND
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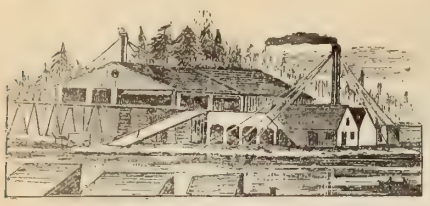
Ships Windlasses, Iron Capstans
and Ships CASTINGS of all kinds.
Ships Cambooses & Cabin Stoves
COOKING AND HEATING
STOVES,
Shop, Office and Parlor Stoves, and Franklins
Agricultural Implements.
BRASS CASTINGS.
Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.
1L18



THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. JUNE 15, 1882.

THERE were recently delivered in San Francisco a collection of Japanese Maples, numbering 51 species.

THE Thunder Bay *Sentinel*, of June 2nd, says the first shipment of lumber for Winnipeg is being landed on the Lake Superior Co.'s wharf by W. H. Carpenter.

THE lumber regions of Lake Superior give employment and support to about 50,000 persons in the winter months, the force, of course, being materially less during the balance of the year.

THERE are said to be some 30 schooners engaged in the lumber trade of Lake Charles, Texas. The four mills operated by Moore, Perkins & Co. cut 3,000,000 feet during the month of April.

AT a meeting of the Metropolitan Board of Works, Mr. Tolhurst moved "that the application of the vestry of Paddington for permission to borrow £12,000 for wood paving works be granted."

THE hardwood mills of Evansville, Indiana, number 11, 6 of them with a capacity of 10,000,000 feet yearly, and five with a capacity of 5,000,000 feet, making an annual total of 15,000,000 feet.

THE *Northwestern Lumberman* says that on the Mississippi the feeling is buoyant under the stimulus of the Manitoba and Dakota boom. It is reported from the St. Paul district that the mills are all far behind their orders, and the railroads are overtaxed to carry the lumber to its destination.

THE *Lumberman's Gazette* says:—The next forestry congress having been appointed to be held in Montreal, a Canadian writer to the Quebec *Chronicle*, who was a delegate to the late forestry congress in Cincinnati, says:—"It is to be hoped that the citizens of Montreal will treat the American delegates to the congress as kindly as the Canadian delegates were treated in Cincinnati, and that the Quebec Government will take such action in regard to the meeting as the importance of the subject demands."

MR. STINCHFIELD put into the flat river and has driven out 35,000,000 feet of logs. The logs were put in on a five and one half mile haul, and the work consumed twenty-seven weeks' time. This is a good business, considering the length of the haul.

A SHIP is on its way from Boston to Seattle, W.T., to load with spars and choice lumber for the return voyage. The Seattle Lumber Company will furnish part of the cargo, consisting of 100,000 feet of plank, at $20 a thousand, and 50,000 feet of clear cedar, at $25 a thousand.

THE *Timber Trades Journal* says the Irish ports show much irregularity. Dublin has nearly doubled its importation, and Belfast has largely increased, but Cork and the southern ports seem to have fallen off, some of them more than half in comparison of their importation up to date of last year.

A NEW pulpit, almost completed, for St. Mary's Cathedral, Aberdeen, will cost about £300. The whole of the structure is of old English oak, the pillar shafts in the pulpit being made of oak which originally formed part of the oakwood in the choir of Salisbury Cathedral, and therefore now upwards of 700 years old.

THE *Lumberman's Gazette* says that a log jam of 60,000,000 logs is reported at Grand Father's Bull on the Wisconsin river, and is likely to hang there. The place is 15 miles from Merrill, where the river is crooked and narrow. Drives on the Chippewa are not very encouraging; many of them are hung up—water all run out.

THE American Forestry Association will hold a meeting on Tuesday, June 20th, at Rochester, N.Y., for the dircussion of forestal topics, for reorganizing by the election of officers, and for other business. All who are interested in forestry are invited to attend. The annual meeting of the American Nurserymen's Association will take place on the following day in the same city.

THE Chicago *Northwestern Lumberman* says: Mr. Robert Dollar, of Bracebridge, Ont., called on the *Lumberman* when in the city on Monday last. Mr. Dollar is one of the most extensive operators in Canada, and hereafter will conduct business on a large scale on the upper peninsula of Michigan, as well. He will soon make his home at Marquette, Mich., and look after the American end of the affairs of his company.

THE Dubuque *Herald* insinuates that in the Duluth land district of Minnesota 40,000 acres of land, worth at least $40 per acre, have been fraudulently pre-empted for the purpose of obtaining the valuable timber. The land has been entered for $1.25 an acre, and it is claimed the parties entering the same have no intention of improving it for farms. The investigation begun by Governor Marshall, of that State, will be carried on by the land department, and after all the facts are gathered, a recommendation will be made. From this large area of land there has undoubtedly been a large quantity of timber taken, and it would be an excellent thing if damages could be obtained for the amount already removed.—*Lumberman's Gazette.*

PUGET SOUND LUMBERING.

A Puget Sound paper in alluding to the camp of Geo. W. Foster, on the Deschutes river, says that their annual product will reach nearly seven million feet, and they give constant employment to about fifty men. Teamsters receive from $80 to $90 per month; choppers, $65 to $70, and boys $1 per day—board and lodging in all cases included. Prices paid for logs vary with the season and quality. The demand now being brisk, rates have advanced from 20 to 25 per cent. over the prices of last year. Good logs now readily command from $5 to $6 per M., while those of special length bring a cash value much in excess of the rates estimated by board measure. One dollar per lineal foot is sometimes paid for logs of unusual length, and a corresponding rate for those which will square given dimensions in excess of the usual scale. As much as $130 has been paid for a single stick measuring an equal number of feet in length, and in furnishing such choice logs Mr. Foster seems to have enjoyed unusual facilities. Frequently orders for special logs are received by him from all parts of the Sound. The supply in the district now occupied by Mr. Foster is practically unlimited. He owns several thousand acres, and has bought enough timber on adjoining tracts to keep him busy the next ten years, without materially extending his line of railroad. In a few weeks the rails will be changed to a new location, crossing the Deschutes at the camp, and penetrating a fine timber district several miles in extent. The trestle and bridge is now nearly completed, and it is to be built with as much regard to stability as if on an established route of travel. In fact, the track is laid with the same care for solidity as on the main line, even if it be on a branch which is to be used only a few weeks. The land covered by this timber is said to be of an excellent agricultural quality, and when it has served its present use will be valuable for farming purposes.

THE LUMBER TRADE.

The condition of the lumber trade from all points of the compass shows greatly increased activity, notwithstanding the unsettled condition of the labor question throughout the country. This may possibly be the natural result of this very unsettled condition of things. Capital in times of strife will naturally turn to safe investment even though it may not be so remunerative as in other branches of trade or industry. Real estate is generally looked upon as a certain investment, and the investment of capital therein naturally demands improvements to make it remunerative; hence the erection of new buildings and the remodelling of those already in existence results. Be this as it may, or whatever may be the cause, the almost unanimous report reaches us that the lumber trade is picking up. Unless there shall be a complete financial revulsion, because of the contest which has been inaugurated between labor and capital, the demand for lumber must continue in order to supply the imperative call for it in the erection of homes for the new settlers which are so rapidly peopling the prairies of the great west. Any country which is increasing in population to the enormous extent that is the United States, and especially the western portion thereof, must have lumber to supply homes for its new comers. Therefore, unless a season of complete financial prostration should result from the causes heretofore named, there must be continued activity in the lumber business.—*Lumberman's Gazette.*

PARRY SOUND.

The *North Star*, of June 2nd, says:—The cut of lumber at the Parry Sound Lumber Company's mills for the month of May was as follows: At the water mill, 2,050,000 feet, and at the steam mill the cut was 710,000 feet, making the total amount cut by the two mills for the month 2,760,000 feet.

Workmen are busily engaged in laying the stone foundation for the Parry Sound Lumber Company's new stable on Seguin street.

One day this week a number of the employees of the Parry Sound Lumber Company presented Mr. F. R. Hogg, a late employee of the Company, with a gold watch chain and locket. On one side was engraved the monogram letters, "F.R.H." and on the other the words, "Presented to F. R. Hogg, by his friends in the P. S. L. Company's employ." Mr. Hogg wishes us to return his thanks to those kind friends who have made him the recipient of such a handsome present.

MONTREAL NOTES.

The *Gazette*, of June 10th, says:—Local business has not been quite as lively during the past week or ten days for the reason that stocks have been run down considerably, leaving limited supplies to work upon. The usual summer trade is still on, but there is not the rush formerly noticed. The business of the month of May was exceptionally good, some dealers having made the heaviest sales of the season in that period. Although stocks have lately been run down, there is a good prospect of replenishing them, as owing to the late copious rains, the log crop is almost sure to be all secured. The American demand for hard woods continues for ports on Lake Champlain, sales of ash having transpired at $20 to $25 per M. feet, and cherry has changed hands at $60 per M. ft. f.o.c. at Point St. Charles. We also notice a shipment of cherry to Portland, Me., and have sales of pine deals to report for Whitehall, the goods being shipped from Ottawa direct, the price being on the basis of $12 here. There is an active enquiry for first and second sidings for the American market and owing to stocks having been pretty well cleared, prices are very dear. As regards shipping culls and deals, there are no lots offering on this market of any consequence, most of the supply having been bought up. The mills are busy filling orders. In this market prices are steady.

A MAMMOTH CIRCULAR SAW.

Messrs. Drabble & Sanderson, steel refiners, Ebenezer Works, Sheffield, despatched lately a circular saw of unusual size, for cross-cutting large timber, which they have recently completed. It is 7 ft. 3 in. in diameter, and will be one of the largest in use in this country. There have been big saws turned out before at the Ebenezer Works, but none of them exceeded 6 ft. in diameter. But the mammoth saw just sent to its destination in Lancashire is a remarkable specimen of Sheffield manufacture, not merely on account of its dimensions, but, perhaps, even more so for the beauty of material and workmanship. There is not a speck or the minutest flaw to be detected anywhere on the plate. In fact, no finer piece of steel could be seen, and what is more to the point, it stood the severe tests which Messrs. Drabble & Sanderson put it to. The thickness of the plate is five gauge, or a quarter of an inch, and the makers reckon upon the substance of the plate itself holding it steady when revolving, so that a guide will not be required on the saw bench. It will run on a spindle. There are sixty teeth to the saw, the space between each being 4½ in. Every part of this magnificent piece of steel machinery is beautifully finished, and whoever happens to see it cannot but be impressed by the perfection to which the Sheffield steel manufacture has been carried.—*Timber Trades Journal.*

U. S. TIMBER LANDS.

The Secretary of the Interior has reversed the decision of his predecessors relative to the cutting of timber on public lands. The department has hitherto construed the words "for domestic purposes" to mean cutting timber by individuals for their own use and not for sale. Secretary Teller holds this to defeat the very intent of the act, which was to provide a way by which needed timber for mines, mills and pioneer towns can be legally obtained. Any such use within the State territory, whether by the individual cutting the timber or by the mill or millman to whom it has been sold, is consumption "for domestic purposes," protected by the act; timber cut, however, must be of the size required by the department. The decision affects a large number of suits now pending.

RURAL BEAUTY.

Strange to say, one thing a person from the city misses in the country is trees. There are ragged bits of bush on the backs of farms and consumptive groves on stony places from which wood is ruthlessly cut whenever wanted. Some of the newer houses have saplings about them, and the more tasteful old homesteads are shaded by ancestral trees, but the ordinary farm house has little about it to make it cheerful. A row of lilacs may be planted in a garden between the currant bushes and the onions, but spirea and fox-gloves are shorn every year from the sides of neighboring rocks which they would so gratefully clothe, or at least the impression is conveyed that if this is not done it is only because no one has time to do it. The more rural cemeteries are square patches of ground with close rows of expensive marble slabs and obelisks unsoftened by a shrub or tree, where, for the tenth part of the cost of a stone, trim cedars and dark firs might be made to speak of love and eternal life, and divide between mound and mound. The people think that it would be profitable, in view of another generation, to

plant ten sugar maples along each farm front, a work which would be well done in half a day, but the half day never comes, perhaps because the roadside is not made up, perhaps because the planting season is a busy time. As the prospect is the roadside will not be made up for a century, it would probably be better to make the best of it as it is. Experience may not prove that the roadside is the best place for tress, even though such a use of it enables a thrifty people to take sweetness from the strong but all acknowledge that trees by the roadside once in sixty feet, would be better for the country than no trees, and, judging from the disrespect shown to our planted trees, any process that would add to the love of trees would do good. One is sometimes pleased to find trees growing in pasture lots, and is cheered with the thought that these at least are preserved out of respect, until the illusion is rudely dispelled by seeing some of the finest trees girdled with the hatchet of some vandal who has not even the conscience to give a condemned tree the honor of decent execution.—*Montreal Witness.*

WOODMAN SPARE THE TREE.

Within a bow shot of the great town gate of Morat, in Switzerland, stands a venerable oak more than 500 years old. It was a full-grown tree on the eve of the famous battle of Morat, when Charles the Bold held conference with his Generals under the shade of its wide-spreading branches. Twenty-four hours later the leaders of the Swiss gathered round this self-same tree, and there offered thanks up to Heaven for their signal victory. They despatched a messenger to Freilburg with the tidings, and,in conformity with a foregone arrangement, confided to him a token by which the Federalists of that city might recognize him as accredited envoy. This token was a leafy branch, cut from the oak in question. Its bearer put forth such speed in executing his mission that when he reached Freilburg he had just strength enough left to gasp out his message, and then dropped dead on the ground, grasping his oak branch to the last. He was buried where he fell, and the branch, planted on his grave, is at the present moment one of the largest and staunchest trees in Europe, having completed its 405th year.

The Adirondack Purchase.

The Malone, N. Y., *Palladium* gives a little clearer statement of the recent purchase of Adirondack region timber lands, before mentioned in the LUMBERMAN. The tract lies in the southern part of Brandon township, and in Waverly, Franklin county. The original owners were Thomas O'Neill, Gilbert Harris, S. F. Vilas, and perhaps others. As before stated, the purchasers are capitalists of Hartford, Conn., and Michigan pine operators. The consideration was $250,000. One or two large steam saw mills will be built near St. Regis Falls, and a railroad from Moira, on the Ogdensburg & Lake Champlain railroad to that point. The operations of the company will aggregate 500,000 logs a year.

A New Kind of Veneers.

A Boston genius has invented glass veneers. Underneath a plate of glass is a substance made in exact imitation of the grain of wood—oak, mahogany, rosewood, maple, etc.,—and the whole attached to the article of furniture, either as a panel top or otherwise. The effect thus produced is said to be beautiful in the extreme, surpassing any polish of the natural wood that it is possible to produce. One of the most important features attending these glass veneers is the great variety of uses to which they are applicable. They are adapted for paneling, dado work, top of center or side tables, mantels, office furniture and even doors.

THE following ominous "Notis" is posted in a Texas saw mill: "Doant munky with the buz saw when in moshun."

IF NEARLY DEAD after taking some highly puffed up stuff, with long testimonials, turn to Hop Bitters, and have no fear of any Kidney or Urinry Troubles, Bright's Disease, Diabetes or Liver Complaint. These diseases cannot resist the curative power of Hop Bitters; besides it is the best family medicine on earth.

Timber Limits for Sale.

I offer Timber Limits Nos. 94, 102, 144, 145, 157, 163, 176 and 182 on the North Shore of Georgian Bay, for sale either "en bloc" or in single Townships of 36 square miles each.

GEORGE J. THOMPSON,
6L7 Winnipeg, Manitoba.

LUMBER

Shingles, Doors, Sash, Flooring, &c.,
WANTED,
STATE QUANTITIES AND PRICE TO
SHORE & DAVIS,
Head Office, 514 Maine Street, **Winnipeg, Man.**
L11

S. S. MUTTON & Co.,

Wholesale Lumber Dealers
TORONTO.

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.

☞P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 1Ltf

MURRAY CANAL.

NOTICE TO CONTRACTORS.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for the MURRAY CANAL. will be received at this office until the arrival of the eastern and western mails on TUESDAY, THE TWENTY-SEVENTH DAY OF JUNE NEXT, for the formation of a Canal to connect the head waters of the Bay of Quinte with Presqu'ile Harbour, Lake Ontario.

A map of the locality, together with the plans and specifications of the works, can be seen at this office and at Brighton, on and after THURSDAY, THE EIGHTH DAY OF JUNE NEXT, where printed forms of tender can be obtained.

Contractors are requested to bear in mind that an accepted bank cheque for the sum of $3,000 must accompany each tender, which sum shall be forfeited, if the party tendering declines to enter into contract for the execution of the works at the rates and prices submitted, subject to the conditions and on the terms stated in the specification.

The cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

This department does not, however, bind itself to accept the lowest or any tender.

By order,
F. BRAUN,
Secretary.

Dept. of Railways and Canals,
Ottawa, May 22nd, 1882. d125-2aw

TRENT NAVIGATION.

FENELON FALLS, BUCKHORN RAPIDS AND BURLEIGH CANALS.

NOTICE TO CONTRACTORS.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Trent Navigation," will be received at this office until the arrival of the Eastern and Western Mails on WEDNESDAY, THE FIFTH DAY OF JULY NEXT, for the construction of two Lift Locks, Bridge Piers and other works at Fenelon Falls; also, the construction of a Lock at Buckhorn Rapids, and for the construction of three Locks, a Dam and Bridge Piers at Burleigh Falls.

The works at each of these places will be let separately.

Maps of the respective localities, together with plans and specifications of the works, can be seen at this office on and after WEDNESDAY, THE TWENTY-FIRST DAY OF JUNE NEXT, where printed forms of Tender can be obtained. A like class of information relative to the works at Fenelon Falls will be furnished at that place, and for those at Buckhorn and Burleigh, information may be obtained at the resident Engineer's office, Peterborough.

Contractors are requested to bear in mind that Tenders for the different works must be accompanied by an accepted bank cheque, as follows:—

For the Fenelon Falls work.....$1,000
" Buckhorn Rapids work..... 500
" Burleigh Falls work..... 1,500

And that these respective amounts shall be forfeited if the party tendering declines entering into contract for the works at the rates and prices submitted, subject to the conditions and terms stated in the specifications.

The cheques thus sent in will be returned to the different parties whose tenders are not accepted.

This Department does not, however, bind itself to accept the lowest or any tender.

By order,
F. BRAUN,
Secretary.

Department of Railways and Canals,
Ottawa, 22nd May, 1882. d127-3L11

CURRIE BOILER WORKS

ESTABLISHED 1852
MANUFACTURERS OF
STEAM BOILERS.

NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTIN & Co.

Esplanade, Foot of Frederick Street, TORONTO.

A. L. UNDERWOOD

WHOLESALE DEALER IN
White Pine, Basswood & Hardwood,
82 King Street East,
TORONTO, ONT.
1Ltf

J. T. LAMBERT,

Lumber and Commission Agent.

ORDERS FOR DIMENSIONS AND ALL OTHER KINDS AND GRADES OF
American Lumber
PROMPTLY ATTENDED TO.

Timber Limits and the Square Timber Trade a Specialty.

Office, Wellington Street, **OTTAWA.** 1Ltf

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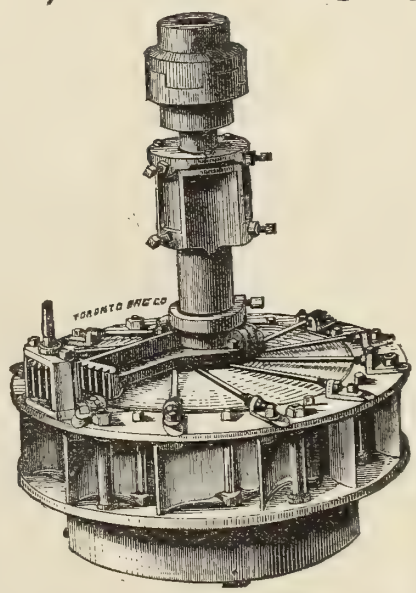

JOSEPH HALL Mfg. Co.,

(ESTABLISHED 1851.)
OSHAWA, ONTARIO.

MANUFACTURE THE CELEBRATED
JAMES LEFFEL'S
Double Turbine Water Wheel,

All Sizes of Stationary and Portable Engines and Boilers, Shafting, Pulleys, Hangers, Gearing, latest improved English and American Gangs.

The Stearn's Circular Saw Mills with Fractional Head Blocks and King of Dogs—this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill. Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Specialty.

☞For further particulars address,

JOSEPH HALL Manufacturing Co.,
12L12 OSHAWA, ONTARIO.

BARRIE SAW WORKS

JAMES HAGUE.
Circular, Cross-Cut & Machine Saws
Gummed and Hammered on Short Notice.
Shop in Sewrey's Foundry, BARRIE, Ont.

D. S. BRIGGS,

9 TORONTO STREET, TORONTO.
WHOLESALE DEALER IN
Clear, Pickings, Common and Hardwood Lumber, Lath, Shingles, &c.
BILL STUFF CUT TO ORDER.
1Ltf

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(ESTABLISHED 1856.)
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Manufacturer of SURGICAL and ORTHOPŒDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description. 1L14
688 and 690 Craig Street, Montreal.

ESTABLISHED 1874.
THOS. GRAHAM

Manufacturer of Every Description of
FILES and RASPS

HAND CUT FILES made from the Best Refined English Cast Steel and *Warranted Equal* in every respect to the best English *brands.*

NEW FILES neatly put up in labelled boxes for the trade; to whom *bottom figures* will be quoted.

Old and Worn-out Files *re-ground* and *re-cut* by hand, and made equal to the New File for use, at prices that will effect a great saving to all consumers of Files

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DECAY OF THE SPRUCE.

The following letter appears in the Montreal *Witness*, of May 30 :—

SIR,—In your issue of May 17th I read a communication from Fairman Hall, on the subject of "The Decay of Spruce Timber." I am pleased to read in your valuable paper a few lines from an experienced person on such an important subject. I was not aware until I read Mr. Hall's letter that the spruce timber in Quebec was dying. I was in hopes the trouble was confined to our own Province alone. It must be a universal decay all over the Dominion. I am a man of considerable experience in the spruce timber woods of this part of the country, being engaged for the last sixteen years each winter cutting and hewing spruce roots and other timber for ship-building purposes. In the winter of 1872 and '73 I first noticed the spruce timber dying. My attention was drawn to it by observing wookpeckers at work on green, healthy-looking trees. On examining these trees I found the bark in the first stage of decay. On cutting such trees I closely watched for signs of rot about the roots, but found none, and as I had to remove the boughs and hew the timber up to nearly the extreme top, I had a good opportunity of observing all that was to be then seen ; but, strange to say, the bark for nearly the whole length of the tree and the lower branches was all that showed any infection—the timber itself appeared to be perfectly sound. From that time up to the present I have, each winter, taken notice of the gradual decay of our spruce trees. The first year they will show a decaying of the bark ; the second year those trees will be quite dead to the extreme top, but the timber inside seems to be perfectly sound, and will make lumber for house building purposes, but totally unfit for ship-building use ; the third year those trees are unfit for any purpose, and others alongside seem to be in the first stage, and so each year the decay goes on. When I first observed it in 1872 I conceived the idea that it was occasioned by a succession of heavy gales we had in August, September and October of 1871, which shook the forests and disturbed the roots, and consequently broke off the small fibrous roots which gave life to the tree, and the decay began in the bark and boughs, although the great secret was the disturbing of the roots by heavy winds, and our forests being rapidly cut away and thinned out, exposed the remainder to other gales, but since that time I have observed the timber in small valleys, where it was completely sheltered from all winds, to be affected, in some cases nearly every tree, some in the first stage, and others in an advanced stage of decay, so that my theory of it being caused by gales of wind would seem to be wrong. I am now at a loss to account for it. It certainly looks like a blight or distemper, and I would like to hear from others on the subject.

RODERICK ROSE.

Cheverie, Hant's County, Nova Scotia.

FORESTRY.

The *Lumberman's Gazette*, of Bay City, Mich., says :—The forestry convention recently held at Cincinnati, although it could not be viewed in the light of a grand success, yet was not void of excellent results. It at least aroused an interest, which had not formerly come to the surface, in the protection and preservation of our forests. Senator Sherman has lately introduced a bill in the Senate which provides that all the public timbered lands adjacent to the sources of navigable rivers or their affluents be withdrawn from public sale and entry ; it further provides for the creation of a commission whose business apparently will be an examination into the practicability of increasing the growth of the class of forests mentioned, that the water supply in the rivers may be kept up and the quantity of the available timber not run short. The bill names Major-General H. G. Wright, Chief of the the corps of engineers, U.S.A. ; Major-General W. B. Hazen, chief of the signal corps ; George B. Loring, commissioner of agriculture, and Professor Spencer F. Baird, Secretary of the Smithsonian Institute, as such commission. It will be observed, therefore, that our forests are not to be entirely neglected, and although the convention may not have presented any perfectly tangible method for the successful accomplishment of the desired result, yet many new thoughts and suggestions were presented in the able papers read at the convention which cannot fail to be productive of the most satisfactory results when properly considered as a whole ; and doubtless after such consideration and careful and studied condensation of the ideas set forth therein, some solution of the difficulties constantly presenting themselves as obstacles in the way of the end sought, may finally be evolved. One good result at least has been accomplished by the Cincinnati convention ; the attention of the press of the country not specially devoted to the lumbering and manufacturing interests has been secured, and the subject of forest culture and protection has thereby received more publicity and consideration within a few weeks than could have been secured in any other manner by years of patient industry and effort on the part of those specially interested through individual effort. The importance of this question cannot possibly be overestimated, and the able and very carefully prepared papers read at the Cincinnati forestry convention, should be given as wide publicity as their importance demands, and the pamphlets containing these papers should be given profuse gratuitous circulation. Educating the public mind to the proper standard, on that question, is as imperative, and will be found equally as effective so far as actual results are concerned, as legislation.

THE BIGGEST WHISTLE.

New Brunswick, N.J., has a steam whistle whose deep bass notes are as familiar as sunrise to farmers within a radius of thirty miles of the town. The people of Bay Ridge, L.I., regulate their clocks and watches by its accurate blasts. On calm, pleasant days it has been heard at the Battery. The ocean and sound steamers have whistles, from 8 to 12 inches in diameter, that can be heard from 10 to 20 miles. There is a heavy toned whistle at Sandy Hook, about fifteen inches in diameter. Many of the coal mines of the country have big whistles to warn miners of impending dangers, and to indicate the time for beginning and quitting work.

But the largest whistle in the world may be seen at the store of the Eaton, Cole & Burnham Company, 58 John street. It was made at their factory in Bridgport, Conn., and ordered from them by Manning, Maxwell & More, of Liberty street, for a Montreal firm. It will be used by the largest saw mill in Canada. Experts in brass work and steam whistles pronounced it one of the best proportioned and the largest of all the steam whistles they had ever seen.

It is about the size of a flour barrel, being 27 inches long and 20 inches in diameter. The average diameter of saw mill whistles is four inches. Its extreme length, from the bowl to the ornament on top, is four feet nine inches. Its spindle is 3½ inches in diameter, or as large as an ordinary steam whistle. It is made of cast brass, and cost $500. It will be blown by means of a spring valve connected with a steam pipe four inches in diameter. A long blast upon it would almost empty a 100-horse power boiler. The Canadian mill that will use it has a boiler of 150-horse power.

The mill has been totally destroyed by fire several times. The proprietors, in order to guard against future destruction of property, ordered the whistle. In case a fire breaks out all employees of the mill and the various fire departments in neighbouring towns will be summoned by the big whistle. It is also to be used, by a system of signals, to give orders to wood choppers and employees at a distance.

[The mills referred to above are those of Messrs. Gilmour, on the Ottawa.]—*N. Y. Sun.*

QUEBEC TIMBER LIMITS.

In commenting on the Railway Land grants, the Quebec *Chronicle* says :—No one can pretend, or has ever pretended, that the lumberman's tenure of his limits confers upon him any vested right whatever in the soil. The lands comprised in his license, and over which his right of cutting extends, belong and have never ceased to belong to the Crown, or, in other words, to the people. And no one, as far as we know, has ever questioned the right of the Government to dispose of such lands, either by free grant or by sale, to *bona fide* settlers, that is to individuals or families, who desire to take them up for agricultural purposes, and not merely for speculating in the timber which may be on them. This power, in the form of a reservation, invariably enters into the written agreement between the Government and the limit-holder. But while this is the case, it is equally true, that subject to this reservation, and to the fulfillment on his part of the conditions of his license, the lumberman's *right* to the renewal of his license is indisputable, and has hitherto always been regarded as property, and in many instances as valuable property. How, indeed, could it be otherwise. It is well known that for years past, limits as such have been bought and sold in open market, that banks and capitalists have advanced largely on their security, and to-day hold them for very large sums of money pledged in their favor in the books of the Crown Lands Department, and that even the present Administration, and the present Commissioner of Crown Lands have repeatedly obtained large prices at public auction by their sale,—prices, be it observed, entirely apart from the yearly rental and other Crown dues upon them. To pretend to assimilate the license-holder's tenure to a mere yearly hiring, is simply to ignore facts patent to all. We have said that under the terms of the act as it ultimately passed, after the conference between the two Houses, the license-holders have no serious cause of complaint. And this is true. For while the Government is empowered to set apart in aid of the various railways, a large extent of Crown Lands, whether held under license or entirely unconceded, it is expressly provided that the limit holders shall be entitled to the yearly renewal of their licenses upon such lands, until such time as the roads are fully completed, and until the companies have established upon them *bona fide* settlers in accordance with the regulations of the Department. If this provision is carried out in good faith, as we trust we are warranted in believing, the limit-holders have, in our judgment, all the protection to which they are reasonably entitled. The resolutions as introduced and the bill as passed are obviously two very different things.

BUFFALO NOTES.

The *Lumber World*, of June 1st, says the demand for lumber at this market has not been so brisk during the month just closing as previously. While there has been at no time an actual stagnation in the trade, the dullness has been quite marked. Prices remain nominally unchanged, though it is reported that concessions have been made in some instances to secure sales. Still, as long as prices are firmly sustained by the manufacturers of the Saginaw Valley, there can be no decided drop here. The fact is that farmers, and consequently country dealers, think lumber is too high, while manufacturers believe that, in view of the raised cost of obtaining logs, the elevated value of timber lands, and the steady decrease in the available supply of standing timber, present rates are fully justified. There is certainly as yet no sign of yielding on their part. In Chicago prices have declined somewhat during the month, but at the last meeting of the dealers, some grades were marked up again. Should harvest results prove favorable, there would undoubtedly be a very large amount of building done throughout the Western States, and in that case an advance rather than a decline might be looked for. At present building operations have been to a considerable extent suspended. In the east this is due largely to a suspicion that building has been rather overdone for a year past ; in the west to the uncertainty with respect to the crops. At any rate, another month will probably clear up most of the uncertainty with reference to the future course of the lumber market.

OTTAWA NOTES.

An Ottawa correspondent of the *Monetary Times* says :—As to the lumber trade, that is in an improved conditions as compared with some former seasons ; prices are strong and the demand good. Workingmen employed in the lumbering business who last year were earning from $1 to $1.10 are this year getting as high as $1.50. The lively condition of the lumber market and the similar supply of the demand have produced an advance to a large class of the hands of from 5 to 10 per cent. since the opening of the season. Last fall many of the mills were comparatively idle for a large part of the time when they have usually been busiest. The water of the Ottawa was very low, and it was therefore impossible to keep the supply of logs. Even the power necessary to drive the mill machinery finally failed. The millmen were therefore eagerly looking for the disappearance of winter, and at the very first opportunity active operations were begun in all the mills, which are now run to their full capacity. Altogether that branch of local business is in a very promising condition. It is quite true, as has been represented, that the price of labor is almost double since 1878, and it is also true that supplies are a good deal dearer. Both results were no doubt contemplated by those who framed the tariff, and if so, at least as far as Ottawa is concerned, the desired object has been attained. But the increase in the price of lumber, which, of course, has not been brought about in any degree by the operations of the N. P., has been probably all along sufficient to counterbalance the advance in wages and the price of supplies.

THE SAWN LUMBER TRADE.

The *Monetary Times*, of June 2nd, says :—It will be seen from our Ottawa correspondence and the accounts of the European and Western American markets given in this issue, that the conditions of the wood trade beyond the Atlantic and west of the lakes are somewhat discrepant. We learn that stocks in the Eastern American markets are full ; Oswego, for example, where the condition harmonizes with Albany and New York. Dealers in these cities are not buying readily from such Canadian millmen as had not contracted for their out-put, but are holding off till mid-June, when they expect the demand to become active, which it is not at present. A good authority writes thus of the markets of Illinois and Michigan :—"For a few weeks past there has been a halt in building operations that has been rather widespread. In many sections of the country, according to the letters received from numerous retail dealers, there has been a holding off on account of the high prices of lumber. In several cities, notably Chicago, the main reason for 'going slow,' or rather an inability to 'go' at all, has been the high price and scarcity of brick."

In the Toronto market prices keep up. Certain kinds of stock, bill stuff particularly, are scarce, not to be had, indeed, and builders are seriously hampered in their operations by the scarcity of these lines.

IT is stated that Walkup, Fisher & Co., of Chicago, have sold 4,000 acres of pine lands, at and near Walkup City, Newaygo county, Mich., estimated to cut 80,000,000 feet of lumber, to the Troy Lumber Company, for $210,000 cash. The Troy Company is to proceed at once to manutacture the lumber. It is alleged that Walkup, Fisher & Co. own large tracts of Michigan pine, probably 300,000,000 feet in all.

BRIGHT'S DISEASE, DIABETES.—Beware of the stuff that pretends to cure these diseases or other serious Kidney, Urinry or Liver diseases, as they only relieve for a time and make you ten times worse afterwards, but rely on Hop Bitters, the only remedy that will surely and permanently cure you. It destroys and removes the cause of disease so effectually that it never returns.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

J. Werts & Son, Freedomville, Ohio, write :—"This informs you that we have sold all those Baxter's Mandrake Bitters you sent us. We sold the last three bottles to-day. Two of our customers disputed about which should have the last bottle, and we decided the matter by promising to send for more at once. The Bitters give universal satisfaction to all who have tried them. We want you to send us twelve dozen forthwith." Baxter's Mandrake Bitters never fail to cure all diseases of the Stomach, Liver and Bowels. 25 cents per bottle. Sold by all dealers in medicine.

Chips.

THE Manistee, Mich., Lumber Company, a new organization, is erecting a refuse burner 26 feet in diameter and 94 feet high.

FOUR vessels, aggregating over 4.000 tons burden, were chartered in one week lately to load deals at Montreal for the River Plate.

THE Duluth Boom Co. have cut a canal from St. Louis river to Spirit Lake. This boom company, as its name implies, is composed of Duluth lumbermen.

A WOOD dealer advises farmers to pile the split article with the bark up. By so doing the bark adheres to the wood, and becomes an item of some importance when the farmer cords it up for the market.

THE Minneapolis *Lumberman* says :—A very firm feeling is noted in the lumber trade at Minneapolis. The complaint is not want of customers at full prices, but want of lumber to fill orders as fast as received.

FOREST fires have been raging to an alarming extent in southern Arizona and western New Mexico, the territory burned over being estimated at 40 miles square, and the damage is immense. The fires are attributed to the Indians.

WOOD enclosed in a close chamber and sub mitted to the action of steam for a limited time will be rendered so pliant that it may be bent in almost any direction. The same process will also eliminate the sap from the wood and promote rapid seasoning.

A JAM consisting of 1,500,000 logs in the Upper Hudson tumbled over Palmer's Falls recently, with a tremendous uproar. It was feared that the pulp and paper mills there would be carried away, but the logs took the right course down stream, and the building escaped injury.

FROM Russia they complain of want of water. A letter from there says, "A good many rivers are totally dry from want of snow and water in the Novgorodsch Government, and the logs which were intended to have been floated down these rivers will have to remain where they are for this year."

IT is said that Prussia has the best system of timber culture in the world. In this branch of her service she has several thousand officials, and while the cost of sustaining this staff is large, the revenue arising from the sale of timber meets all expenses and returns annually a large surplus to the state.

ADVICES from Sweden state that it is now apparent that the fall of snow which took place at the beginning of the spring has enabled the millmen to get out a larger number of logs than was anticipated, and competent authorities are of opinion that the quantity will be very little, if anything, less than an average crop.

A HUGE pile of sawdust in the rear of the old Blacker mill, at Manistee, Mich., has been burning for some time, and nothing can extinguish it. The pile covers several acres, and the fire occasionally bursts out of it like a volcano, and necessitates a vigilant watch to prevent the fire extending to more valuable property.

A CARGO of square timber for the English market was recently loaded at Traverse City, Mich., and one at Petoskey, the latter amounting to 48,000 cubic feet. They will be towed down the lake by the steam barge *Albion*, through the canal and into the St. Lawrence. At Quebec the timber will be re-shipped to England.

THE *Lumberman's Gazette* says the great cause of the unwonted demand for lumber in the northwest at present is the enormous emigration floating to that territory. This, of course, will create a demand which must be satisfied at all hazards and at whatever expense, and so long as this emigration continues the demand will be unabated.

BETWEEN Newaygo and Muskegon, Mich., nothing can be seen on the river but a solid jam of logs. At Newaygo they are piled so high as to dam the river, making it flow outside its natural channel, and flooding all the low land along the stream. Many farmers between Newaygo and Muskegon, along the river, have been driven to seek higher ground, and their farms are partially submerged.

THE *Northwestern Lumberman*, of June 3rd, says forest fires have been raging in the pine forests of Claire county and farther north in Michigan, there having been no rain of any consequence in that region for several weeks. Several hundred acres were burned over, and some valuable timber destroyed. In Roscommon county fires have done a great deal of injury to timber. In Iasco county 300,000 feet of logs, owned by the Keystone Lumber Company, of West Bay City, Mich., was destroyed.

THE *Lumberman's Gazette* says that during the month of April, 6,173,000 feet of yellow pine were shipped from the port of Jacksonville, Fla., as against 3,330,000 feet for the same month last year, and 2,569,535 for April of 1880, an increase of 2,843,000 feet over 1881, and of 3,603,465 over 1880. The shipment of lumber from that port increases every month, and it is believed that the shipments in 1882 will double those of any previous year. The figures given do not include the shipments over one of the roads.

IT made the eyes of a *Lumberman* representative blink to look upon a cargo of some 300,000 feet of lumber that was received last week from the Lake Superior country by A. R. Gray & Co., at their yard on Paulina street. There was one plank in particular, 16 feet long, 4 inches thick, 33 inches wide, without sap, knot or blemish. Such lumber comes high, but the eastern dealers must have it, and this plank, with others, was shipped to New York. It was right from the saw, but the New Yorker said it was good enough to have green.

ONE of the most energetic and promising lumbermen and jobbers in this section, says the Jersey Shore *Herald*, is Samuel Carson, at Waterville. At present he has in his employ about 50 men and is operating a large job for Messrs. Finley, Young & Co., Williamsport. He will get in about 2,000,000 feet of lumber and 1,500 cords of bark this season. Besides this large job he is conducting one on his own lands which takes up a great deal of his attention. Mr. Carson is as busy as it is possible for a man to be, but he is thoroughly energetic and is capable of mastering all he undertakes.

THERE is a prospect of a lively tussle between the Duluth lumbermen, and the St. Louis River Water Power Company, who have established booms during the past winter at Fond du Lac. The Water Power Company stopped recently a quantity of logs at Fond du Lac, until the toll, which they claimed, should be paid, and the Duluth parties interested replevined the logs, giving bonds to pay the tolls if the courts decided against them. The Duluth people say the booms are not located so as to accommodate them, and the whole question will be thoroughly ventilated before the courts.

THE *Northwestern Lumberman* says it is not unfair to assume that each family of emigrants who come to the shores of the new world will demand an average of 1,000 feet of lumber for each member of it, for the purpose of house-building, fencing of farms, building of barns, etc. Every new settler needs a house, barn and fences. Every little knot of settlers leads to the establishment of a village, town or city, each of which, in greater or less degree, increases the demand for lumber in house-building, road-making, for sidewalks, fences, and last, but not least, packing boxes. Each new farm demands an increase in the railroad or waggon road facilities, in the manufacturing or mercantile departments, and to none of these is any one thing more requisite than lumber.

THE *Northwestern Lumberman*, of Chicago, says :—"It is sometimes profitable for a man to stop long enough to breathe and think, and sometimes it is profitable to be forced to do the latter. It is best to keep clear of any speculative craze, and a great many men will not keep clear of it as long as a rush of business urges them on. The fast gait is liable to carry them off their feet. Like some trees, they put forth so many branches that a drouth will wilt them, or a tempest leave nothing but the stub standing. We are not inclined to think that the lull that at present is complained of in some directions in the lumber trade will be looked back upon as very disastrous a few months hence. We expect the time will come within eight months when it will hardly be referred to or thought of."

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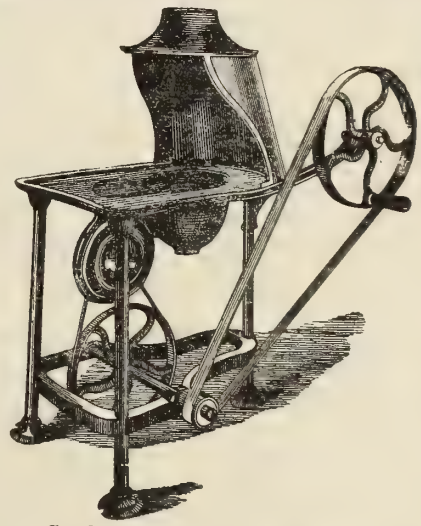

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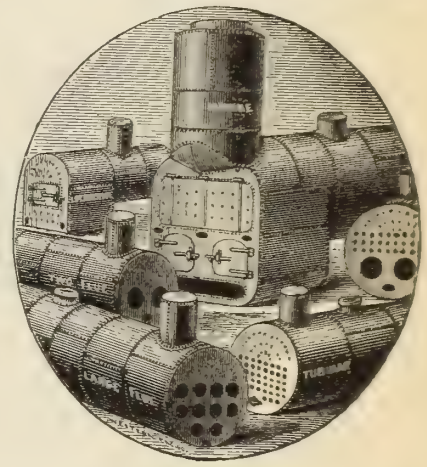

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TRADE MARK

AFTER TAKING. BEFORE TAKING.

THE GRAY MEDICINE CO.,
1L12 Toronto, Ont.

Market Reports.

MONTREAL.

From our own Correspondent.

JUNE 9th.—Our local market has been undoubtedly active during the past fortnight, but owing to the very heavy rains, building has not been so brisk as was expected, but better times are now looked for, the high prices which are ruling just now prevent people from buying beyond their immediate actual requirements. Stocks are now pretty full and dealers are prepared to meet whatever demand turns up. Prices tend upward and in some lines we advance quotations, while laths are a little easier. We now quote as under, ex yard :—

Pine, 1st quality, ₱ M.	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M.	14 00@15 00
Pine, cull deals, ₱ M.	8 00@12 00
Pine, mill culls, ₱ M.	8 00@10 00
Spruce, ₱ M	10 00@11 00
Hemlock, ₱ M.	9 00@11 00
Ash, run of long culls out, ₱ M.	17 00@20 00
Bass, " " ₱ M.	17 00@20 00
Oak, ₱ M.	35 00@45 00
Birch, ₱ M.	18 00@20 00
Hard Maple, ₱ M.	18 00@25 00
Lath, ₱ M.	1 30@ 1 40
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M.	2 00@ 0 00

SHIPMENTS.

There has been no ships cleared so far for South America, although several have arrived and are busy discharging their cargoes. A large quantity of lumber is lying here waiting to be loaded. The shipments to ports in the United Kingdom from the opening of navigation to date are as under : To Liverpool, 22,952 pcs. deals ; to London, 35,000 ft. lumber ; Glasgow, 50,000 ft. lumber ; Bristol, 20,000 ft. lumber ; to St. John, Nfld., 3 mille staves.

FREIGHTS.

There has not been much done in the way of chartering ships, so many having been engaged some time ago. Latest engagements were for sailing vessels to the River Plate at $14@15.

CORDWOOD.

Prices are about steady, but there is very little doing ; arrivals have been large, but the wood has generally been of a very poor quality. People in the country seem to have gone more into turning out railroad ties for shipment to the United States than into cordwood. The high prices ruling cordwood compared with the price of coal seems to prevent dealers taking hold of the article, unless at lower figures tban it can be bought at here. We quote on the wharf, ex cartage :—

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	5 50
Short "	5 00
Tamarack	4 50@5 00

OTTAWA.

From our own Correspondent.

JUNE 8th.—Mills hereabouts are all in full blast, and everything is progressing most satisfactorily. Logs are arriving in large quantities and water is keeping sufficiently high. It can be fairly estimated, taking present affairs as a basis, that the cut of the season of 1882 will be fully one-quarter more than any previous season in the history of the Ottawa Valley. The stock books of the different firms in this locality at the close will no doubt show that the total cut has reached 235,000,000 feet.

LARGE SHIPMENTS.

During May nearly 2,000,000 feet were shipped by boats to the United States by the New York and Lake Champlain Transportation Company.

SQUARE TIMBER.

This year has been unusually favorable to the square timber owners. The majority, or at least a very large number of the rafts are now well on the way for Quebec. Not much difficulty has been experienced in passing the numerous slides, etc. Since May 26th the following rafts left this city for the Quebec market :—

Rafts.	*Owners.*	*Cribs.*	*Pcs.*
1....	David Moore	140	3,295
1....	Hilliard & Dickson	111	2,836
1....	R. H. Klock	175	4,742
1....	Thistle, Carswell & Co.	124	3,030
1....	A. & P. White	103	2,561
1....	O. Latour	111	2,592
1....	"	102	2,512
		866	21,568

Not a great many sales have been reported at Quebec, and when the foregoing rafts have reached their destination, together with what is continually passing here, the Quebec market for square timber will be well stocked.

LIMIT OWNERS ORGANIZING.

The action of the Quebec Legislature at its last session in attempting to interfere with the tenure of limits has brought the large body of limit owners and other parties interested to a sense of duty. A large number of the lumbermen of this city returned to-day from Montreal, where they had been attending a large meeting of the Provincial limit owners, who assembled to organize an association for the better security of the tenure of limits. In conversation with some of the delegates, it was learned that the real point aimed at in the organization of the association was the appointment of a committee to accomplish what the limit holders at present desire, viz., to give a value to their licenses. A constitution was drafted and adopted, and officers elected as follows :—

President—Andrew Thompson, Quebec.

Vice-President—W. G. Perley, Ottawa.

Council—Messrs. Girouard, McNaughton, King, Baptist, Peter White, H. E. Bronson, and Hon. John Hamilton.

It was decided that the places of meeting should be alternately at Ottawa and Quebec.

TORONTO.

From our own Correspondent.

JUNE 9th.—Lumber sales and shipments are now extremely quiet. The last year's cut is now all forward, and the new cut not being quite ready to ship, has had the effect of making the docks present quite a forlorn aspect, but in the course of three or four weeks hence shipments will boom again, and prices are likely to be fully maintained for the rest of the season. Stocks at the various retail yards are much below the average at this period of the year, and in consequence of the small demand dealers do not seem over anxious to stock up, even if lumber could be easily obtained to do so, which is not the case, especially as regards dimension stuff, that class of lumber being hard to obtain. As predicted in one of my former letters, it was quite easy to determine a scarcity of bill stuff, when manufacturers could command one to two dollars per M. more for other kinds of lumber cut from the same class of logs, formerly cut into dimension stuff ; then again the demand created by the large influx of emigrants into Manitoba will make itself felt during the remainder of the present year at least, so that taking all things into consideration, the outlook for the balance of this year is promising.

Quotations previously furnished you as to retail yards remain firm, except in lath, which I quote some lower, none but newly cut being now obtainable.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths.	12 00
" stocks	14 00
Scantling and joist, up to 16 ft.	14 00
" " " 18 ft.	14 50
" " " 20 ft.	15 00
" " " 22 ft.	15 50
" " " 24 ft.	16 00
" " " 26 ft.	16 50
Scantling and joist, up to 28 ft.	17 00
" " " 30 ft.	18 00
" " " 32 ft.	20 00
" " " 34 ft.	22 50
" " " 36 ft.	25 00
" " " 38 ft.	30 00
" " " 40 to 44 ft.	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks.	18 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00
B. M.	
1½-inch flooring, dressed	30 00
1¼ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅝ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M.	2 50@3 00
XX sawn shingles	2 00
Sawn Lath	2 25

LONDON, ONT.

From our own Correspondent.

JUNE 10th.—No important change has taken place in this market since my last letter. Lumber remains firm at last quotations, but the demand is very light, though if a heavy call for raw material was to spring up our yards would soon be emptied, and it is a matter of doubt if they could be replenished, as all the supply centres for this market are low in stocks,

A slight concession from list prices continues to be made in some cases where cash down is paid, and shingles are perhaps a trifle easier. The general feeling is that the price of lumber at its present stage acts as a deterent to small builders, this, and the strikes together, no doubt have this tendency.

The city is advertising for tenders for more cedar block paving, and before the summer is over our city streets will be as level as a lawn. That portion of Richmond street from the station to Dundas is nearly completed, and if the contractor has made it profitable he will probably be a candidate for more work of the same sort.

The brick wholesale block is now assuming very large and handsome proportions, and will be roofed in about a couple of weeks.

Quotations for this date are as follows :—

QUOTATIONS.

Mill cull boards and scantling	$12 00
Shipping cull boards, promiscuous widths.	13 00
" " 10 and 12 in. stocks.	13 50
Common boards, promiscuous widths.	15 00
Scantling and joist, up to 16 ft.	16 00
" " " 18 ft.	16 50
" " " 20 ft.	17 50
" " " 22 ft.	18 50
" " " 24 ft.	20 00
Common stocks	16 00
Common 2 in. plank	15 00
Cutting up plank and boards.	20 00
Sound dressing stocks.	19 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	22 00
¼ " " " "	22 00
1 " " " "	22 00
XXX sawn shingles, ₱ M.	3 25
Lath per 1000 feet	5 00

ST. JOHN, N. B.

From our own Correspondent.

JUNE 8th.—Since our last report we have had heavy rains, the water in the stream has risen considerably, and there is very little doubt but that most of the logs cut last winter will be got out, and prices continuing very high (owing to the low rates of freight that steamers from the United States are still accepting), the lumbering interest throughout this Province must be in a flourishing condition.

DEALS.

Deals are arriving very freely both from the River St. John and the Bay of Fundy, and what are not contracted for are still being bought up freely at the same high prices that have been ruling all spring, the merchants being anxious to take advantage of the low rates of freight to get them sent forward.

FREIGHTS.

There is a slight improvement in freight, owing no doubt to the large quantity of deals, etc., arriving. We quote steam for W. C. England at 50s. c. d., and sail for the same place at 52s. 6d. c. d.

SHIPMENTS.

The shipments of deals and other sawn lumber for the past fortnight are as follows :—

For Europe	14,517,000 Sup. feet.
" United States	1,901,000 "

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations :—

Asdrubal, (s), 1,194, Avonmouth.
Nebo, (s), 1,237, W. C. England.
Buteshire, (s), 872, W. C. England.
Gladiolus, (s), 1,258, W. C. England.
Earl of Lonsdale, (s), 980, Bristol Channel.
La Gaule, (s), 1,194, W. C. England.
Minnie Swift, 1,150, Liverpool.
Bertie Biglow, 1,142, Liverpool.
Aphrodite, 740, Liverpool.
Anna P. Odell, 379, Tralee.
Kate Burrill, 691, E. C. Ireland.
Twilight, 755, Londonderry.
C. E. Robinson, 530, St. Nozaire.
Huron, 774, Londonderry.
Guiana, (new), 1,265, Liverpool or Cardiff.
Keswick, (new), 924, E. C. I. or W. C. England.
Annie Barker, 355, Carnarvon.
Giacomo Nortolo, 499, Bristol Channel.
Souvenir, 828, W. C. England.
Prudhoe, 580, W. C. England.
Gler, 497, W. C. England.
Lizzie Wright, 493, ——
Ragna, 525, ——
Mindet, 438, ——

ALBANY.

The attendance of buyers in the district since our last report, says the *Argus*, has been better than during any week of the season, and the sales have been free. The demand for lumber has been from the river towns, from New York, Brooklyn, New Jersey, and the East. Stocks are ample for the enquiry, and the assortment is good ; prices are firmly held, and there is not the slightest indication of any easing up. The condition of the Michigan and Canadian markets is such as to forbid any look in that direction. The most marked feature in the trade is the large sales made in the Saginaw district within the past few days ; these sales which, in the aggregate, were given at 40,000,000 feet, were, in the main, made ahead of their manufacture. In Canada, as well as Michigan, the sales are of lots sold far ahead of their manufacture ; some houses in Canada report having already sold full seventy-five per cent. of their season's cut, and at prices that forbid their replacing aught held here at present quotations. Hardwood continues in steady demand at unchanged prices. Coarse lumber is in continued good demand at quotations ; the receipts are less free ; the Northern mills have a good supply of water. The river craft is busily employed taking away lumber, and boats are getting scarce.

Quotations at the yards are as follows :—

Pine, clear, ₱ M.	$55 00@65 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in.	00 28@00 32
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M.	25 00@30 00
Pine, 12-in. boards, 16 ft.	25 00@30 00
Pine, 12-in. boards, 13 ft.	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each.	00 00@00 10
Ash, good, ₱ M.	40 00@43 00
Ash, second quality, ₱ M.	25 00@30 00
Cherry, good, ₱ M.	60 00@85 00
Cherry, common, ₱ M.	25 00@35 00
Oak, good, ₱ M.	38 00@43 00
Oak, second quality, ₱ M.	20 00@25 00
Basswood, ₱ M.	25 00@30 00
Hickory, ₱ M.	36 00@40 00
Maple, Canada, ₱ M.	26 00@30 00
Maple, American, per M.	25 00@28 00
Chestnut, ₱ M.	35 00@40 00
Shingles, shaved, pine, ₱ M.	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 75
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ₱ M.	0 00@ 1 75
Lath, spruce, "	0 00@ 2 00
Lath, pine, "	0 00@ 2 25

BOSTON.

The *Journal of Commerce*, of June 10th, says business is moving along in a quiet way, with no decided change in values. Eastern lumber is in fair request, but prices are easier on spruce and hemlock. Coarse pine boards, dry, are wanted. Laths and sawed cedar shingles are scarce and high. Western lumber is in reduced demand, as dealers do not like to stock up largely at present prices. Hardwoods are a little quiet and easy, but a better demand and firmer prices are looked for later on. Southern pine is quiet and lower. Flooring and step plank of best grades continue in fair request, and prices are about the same. Our quotations are for car-load lots.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds.	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@49 00
Common	18 00@20 00
Culls	13 00@14 00

CHICAGO.

The *Northwestern Lumberman* says the general features of the lumber trade have not materially changed since our last report. Holders at initial points, such as Saginaw, Lake Michigan ports and Eau Claire, are still firm in their views, and but little concession anywhere has been made to dealers, This has acted as a drag on trade, buyers taking hold of stock sparingly, preferring to await the season's developments. Generally there has been a steady demand for lumber for building purposes, though not nearly as heavy as it would have been had the condi-

tions been favorable, such as tranquility in labor matters, assured crops, an encouraging outlook, and a little less stiffness in the back of manufacturers of lumber.

CARGO QUOTATIONS.

Short dimension, green	$11 00@11 50
Dry	11 50@12 00
Long dimension	12 50@14 00
Boards and strips, No. 2 stock	11 50@15 00
No. 1 stock	16 00@20 00
No. 1 log run, culls out	18 00@22 00
Standard shingles	2 65@ 2 75
"A"	2 75@ 2 95
Lath	2 35@ 2 40

Receipts and shipments of lumber and shingles for the week ending June 8, as reported by the Lumberman's Exchange :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	56,951,000	33,221,000	36,662,000	9,145,000
1881	55,502,000	18,062,000	53,348,000	19,994,000

Receipts and shipments of lumber and shingles from January 1, to and including June 8th :—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	526,637,000	246,118,000	769,446,000	401,795,000
1881	384,467,000	163,085,000	554,305,000	226,689,000
Inc.	142,220,000	78,033,000	214,141,000	175,106,000

LAKE RECEIPTS TO JUNE 1.

1882	414,105,000 230,731,000
1881	283,596,000 127,062,000
Increase	130,509,000 103,669,000

STOCK ON HAND MAY 1.

	1882.	1881.	1880.
Lumber	294,244,311	228,256,644	238,483,874
Shingles	104,027,305	73,698,575	115,116,000
Lath	10,611,535	21,038,756	23,736,360
Pickets	1,827,993	2,693,844	670,259
Cedar posts	159,937	550,027	75,728

OSWEGO, N.Y.

We advance quotations on some grades. The market is still well supplied with seasoned stocks. The demand is not quite so firm as last month. The prospect of a very large production this year has induced many of the large buyers to purchase sparingly, trusting for a lower market when shipments of the new cut begin to come forward.

Three uppers	$42 00@46 00
Pickings	32 00@36 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	11 00@14 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@40 00
1¼ inch	34 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1¼ inch mill run	14 00@20 00
" " " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 00@ 4 35
XXX, 18 inch, cedar	3 25@ 3 55
Lath	1 80@ 1 85

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@49 00
Common	20 00@22 00
Culls	14 00@15 00

LIVERPOOL.

The *Timber Trades Journal*, of May 27th, says :—The arrivals of timber-laden vessels have not been numerous during the past week, the chief item of the importation being spruce deals, of which several cargoes have come to hand by steamers; some of them had already been contracted for "to arrive" and some are upon the open market. The state of trade continues in a very unsatisfactory condition, but it is hoped that a better state of things is imminent. Should the general improvement be continued, it ought to influence the timber trade at no distant date, and lead to a rise in prices.

On Tuesday Messrs. Farnworth & Jardine offered by sale by auction a cargo of St. John, N.B., spruce deals, just arrived per steamer. There was a fair attendance of country purchasers, but, as usual, the chief buyers were found in the ranks of the local merchants. About one-third of the cargo was withdrawn, but was all sold subsequently at the auctioneers' limits. The prices realized were as follows :—

Spruce deals, St. John, N.B.—

	£	s.	d.	£	s.	d.
16 to 28 ft. 3×11	8	2	6			
12 " 15 " 3×11	8	0	0			
9 " 11 " 3×11	7	15	0			
12 " 15 " 3×9	7	10	0			
9 " 11 " 3×9	7	7	6			
12 " 15 " 3×7	7	0	0			
9 " 11 " 3×7	7	0	0	7	2	6
9 " 27 " 2½×7	7	10	0			
9 " 28 " 3×8 & 10 / 3×12 to 15	7	10	0			
9 " 27 " 4×7 to 12	8	17	6			
9 " 25 " 2½ & 3×6	7	5	0			
9 " 26 " 3×5 & under	7	0	0			
Boards	7	5	0			
Deal ends	6	10	0	6	12	6

GLASGOW.

The *Timber Trades Journal*, of May 27th, says :—The timber fleet which sailed from the Clyde this year is now expected to be much later than usual in returning with spring cargoes, in consequence of the tremendous fields of ice reported off the banks of Newfoundland and extending far into the Atlantic. This occasions some anxiety, and up till Tuesday only one shipment is reported as having arrived out, viz., the *Abbotsford*, of Greenock, which sailed from the Tail of the Bank on the 8th ult. A number of Clyde owned ships sailed several days before that date, and, with the exception of the ill-fated *Western Belle*, none of them have since been reported.

Advices received from the St. Lawrence speak of the reports of vessels coming westward reading like the accounts of arctic expeditions.

Arrivals of wood goods at Clyde ports during the past week have been comparatively moderate, and consist mainly of greenheart timber and pitch pine.

Messrs. Edmiston & Mitchells, held an auction sales at Greenock, on the 18th inst., when the following rates were obtained :—

Pitch pine timber hewn, 90 c. ft. av. per log, 1s. 6d. per c. ft.
Do. sawn (100 logs) 17½ c. ft. av. per log, 1s. 1¾d.
Do. planks, 3 to 5 in. thick, 1s. 0¼d.
Quebec ordinary yellow pine, 85 c. ft. av. per log, 1s. 3¾d.

Rafts Arrived.

The Quebec *Chronicle* gives the following list of rafts arrived :—

June 2—Ross & Co., deals, Montreal or Kingston.

June 6—Ross & Co., deals, Montreal or Kingston.

Jas. Davies, staves, sundry coves.

John Roche, deals, Wolf's cove.

Perley & Pattee, deals, Bridgewater cove.

June 7—A. H. White, birch, J. H. Clint's wharf.

Jas. Davis, staves, Union cove.

J. Rae & Co., etc., staves, Indian cove.

Thistle, Carswell & Co., white and red pine, Cap Rouge,

Collins Bay Co., pine, oak, ash, &c., Indian Cove East.

Cones Always Closed.

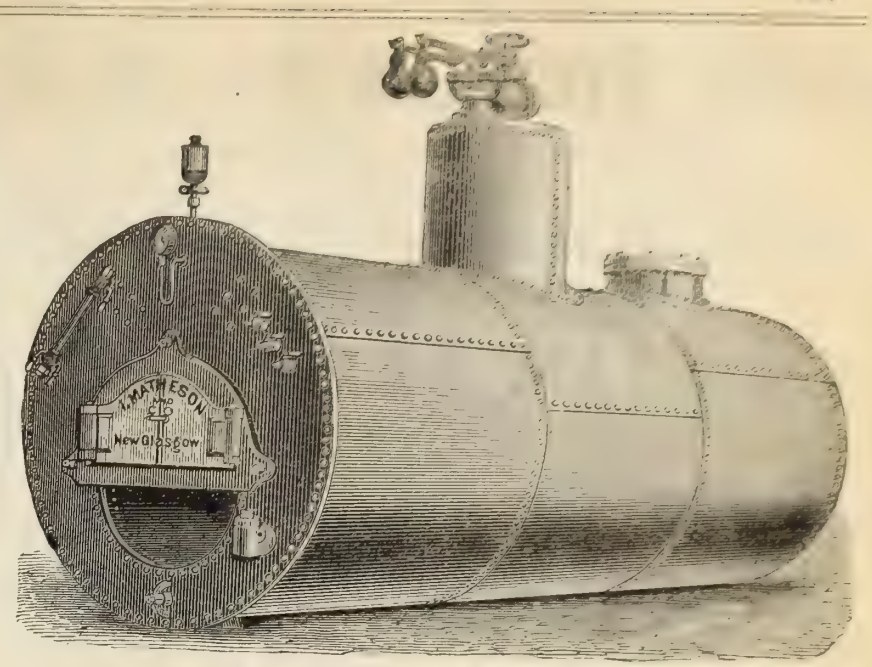
A remarkable statement was made recently before a scientific body in London—the statement given as on the authority of Mr. Veitch, the well-known author on "Coniferæ"—that the cones of many of the species on the Pacific Coast never open and permit the seed to escape unless opened by a forest fire, when they fall out and replenish the burned waste. "They hang on the trees for many generations, even for thirty years." The cedar of Lebanon is known to be of this character, but it is news as to any of the American forms of this order.

Some of the finest walnut trees in the mountains of North Carolina have been sold for $40 each as they stand in the woods, the purchasers reserving the right to remove them within a certain number of years.

In 1881 the Kansas City, Fort Scott & Gulf Railroad Company planted 250,000 catalpa trees, which went to make up a total of 850,000 trees of all kinds planted. Thus far the catalpas have grown well and rapidly, and are very little affected by cold.

The "Tin King" Talks.

From Maine to Manitoba,—from St. John's to British Colnmbia, Mr. Thomas W. McDonald, the Tin King of the Dominion, whose large works extend from 153 to 157 Queen street, Toronto, and cover a solid block, is recognized and respected. Mr. McDonald's experience with the Great German Remedy is thus announced by him : "It is very gratifying to me to be able to give a written testimonial respecting the unequalled merits of the world renowned remedy, St. Jacobs Oil, as an alleviator of pain. I was for years sorely troubled with a swollen leg. In vain I tried all the prescriptions of medical men. At last in deep despair I resolved to test the virtues of St. Jacobs Oil, the Great German Remedy, and to my great joy before one bottle had been exhausted I found myself completely cured. Trusting that St. Jacobs Oil may meet with the success it deserves, I close this statement, by reiterating my indorsement of its efficacy.



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A Twenty-eight Thousand Dollar Shingle.

An exchange says that it isn't often that one finds a shingle worth $28,000, yet Joseph C. Palmer, a Calfornia pioneer, who recently died, once gave one that value. It happened in this way. He was a banker, and had trust funds in his hands amounting to $28,000. It became necessary to draw the money at once, and Mr. Palmer's consent was necessary, but he had been called away to attend to some duty in a lumber yard, some mile or more from the bank. Thither the depositor hastened and made known his wants, and the necessity of having them attended to immediately. Mr. Palmer could find neither pen, pencil, ink, nor paper. But without a moment's hesitation, he picked up a shingle borrowed a piece of red chalk, and with it wrote a check on the shingle in large, distinct letters for $28,000. This was good when presented for all the money the depositor had in the bank, and it proved an exceedingly good advertisement for Palmer.—*Northwestern Lumberman.*

Australian Trade.

Messrs. Gemmell, Tuckett & Co.'s timber report, dated Melbourne, April 12th, says the drought referred to in our last report has since broken up, and we anticipate, in consequence, that great benefit will accrue to our staple industries, which must react favorably upon building operations. The demand for wood goods has been fairly active; but prices for some lines are slightly easier, the trade not being inclined to increase stocks. American lumber—We report sales ex *Dirigo*, *S. R. Bearce* and *Evéline*, the latter being transhipped from Adelaide. Clear pine realized £17 to £16 17s. 6d.; w. p. shelving, £13 15s. to £16 5s. per M. according to quality, white pine ceiling, £14 2s. 6d. do.; the trade holding moderate stocks.

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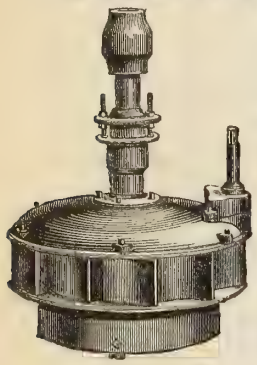

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It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

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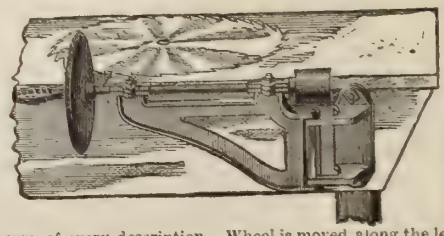

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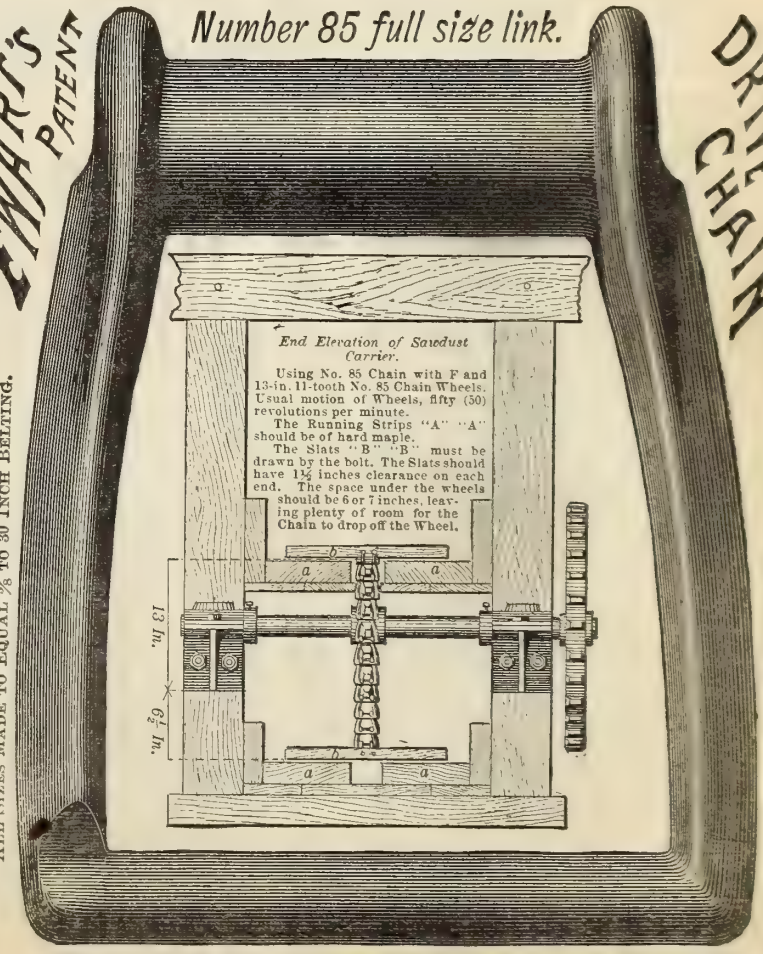
SWART'S PATENT

DRIVE CHAIN


End Elevation of Sawdust Carrier.
Using No. 85 Chain with F and 13-in. 11-tooth No. 85 Chain Wheels. Usual motion of Wheels, fifty (50) revolutions per minute.
The Running Strips "A" "A" should be of hard maple.
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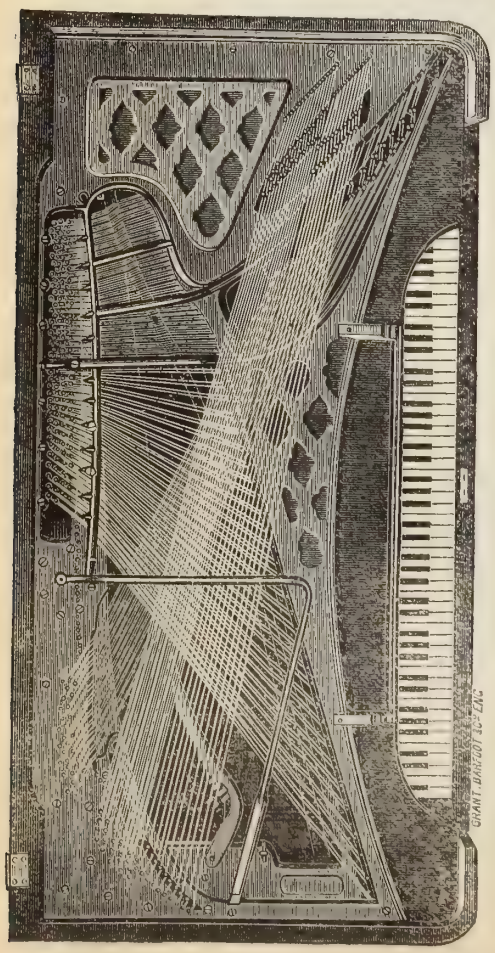

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CARRIES OFF THE HONORS OF 1880 AS FOLLOWS:

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At Hamilton Provincial Exhibition - - - - - - 1st Prize and Diploma
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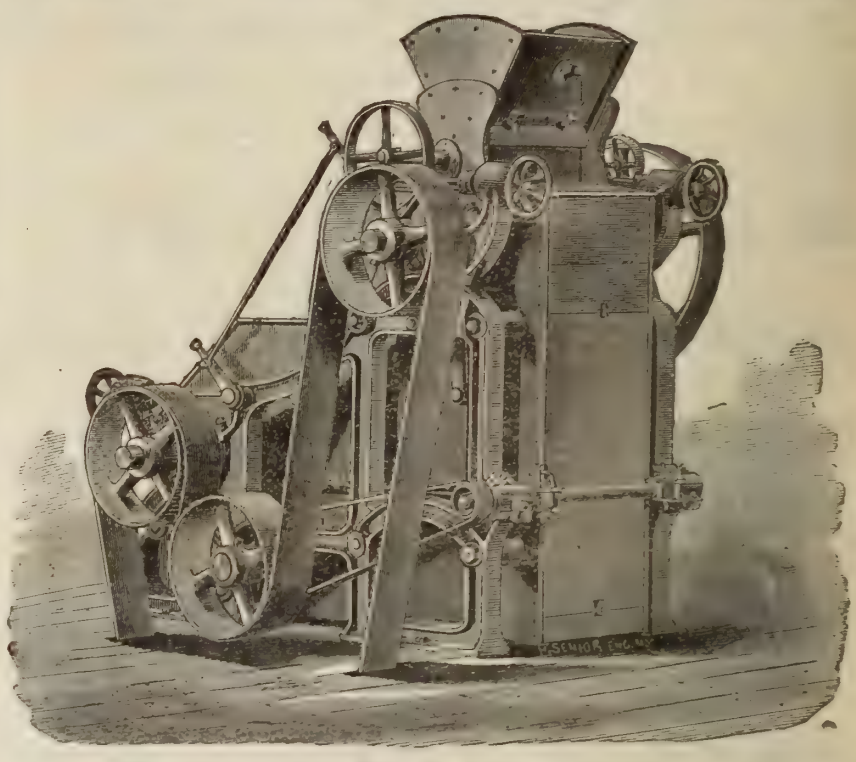
THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

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☞**Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.**

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M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, Esq., Peterborough.

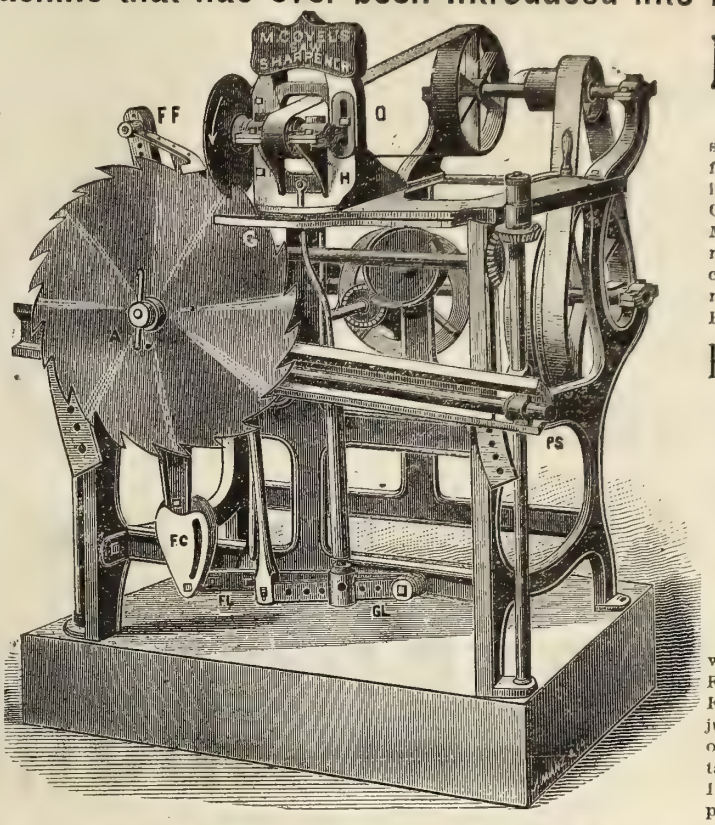
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



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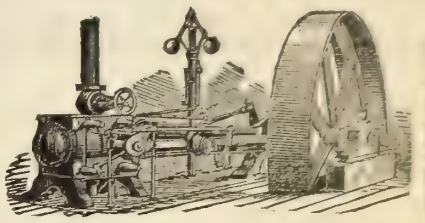
I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS

CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its reputation, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour.

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WILLIAM HAMILTON,

PETERBOROUGH, ONT.

LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices.

All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.

BOOK-BINDING of every Description got up in a very Neat and Superior manner.

Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

TOKER & Co.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

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HAMILTON, CANADA.

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EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERSTON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

11.1

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM

VOL. 2. PETERBOROUGH, ONT., JULY 1, 1882. NO. 13.

DESPISED TREES.

The Western catalpa, formerly little known beyond the region of the lower Ohio, except as a few specimens have been grown for the sake of their beautiful flowers, which resemble somewhat those of the horse chestnut, has lately been found to be one of our most valuable trees. What chiefly commends it, in addition to its very rapid growth, is its remarkable durability. No tree is known to be equal to it in this respect. It seems to be almost imperishable when exposed to moisture, and was formerly much used by the Indians for canoes. It has been a favorite material for fence and gate posts, and posts are now to be seen which have been in the ground from 50 to 100 years and show hardly any signs of decay. It promises to be a very valuable tree for railway ties, and some of our railway companies, especially in the west, are planting it extensively on this account. Hundreds of acres of prairie land, with not less than 2,700 trees to the acre, are now being set with catalpa and ailanthus trees. The Iron Mountain Railroad Company, whose road runs for hundreds of miles through a heavily timbered country, have made a similar contract for planting near Charleston, Missouri, one hundred acres of the catalpa as an experiment. This they do because, while they own some of the finest white oak timber on the continent, catalpa ties have stood on their road for 12 years entirely unaffected by decay, and the demand for ties and for posts of this wood far exceeds the present supply. It is estimated that the new railroads built in the treeless states in 1879 require over 10,000,000 ties.

RAIDS ON U. S. TIMBER BY CANADIANS.

A special from the Red River reservation to the St. Paul *Pioneer Press* says :—A party of Red Lake Chippewa hunters have returned from their spring hunt on the Rainy River, and report that a party of Canadians, with a number of British Chippewas, were and have been lumbering on the American side, on land belonging to the Red Lake reserve. These hunters, who are reliable Indians, state that no less than one thousand logs are on the bank of Rainy River, and that a tug had been busily at work hauling them over to the Canadian side. Large quantities of cedar posts have been cut and are now awaiting a speedy transfer over the river. The lumbering camp seems to be in an isolated place, and would have never been discovered had it not been a choice place for muskrats, where these Indians repair every spring for their hunt They have utterly riddled one cedar swamp, converting it into ties and posts. Parties here who were there at the time of the former trouble with lumbermen and their whiskey, during Maj. Runee's time, state that the pine is of the first quality, accessible to the river, and that there is no better cedar in Minnesota. It keeps these Indians busy in watching the manœuvering of greedy lumbermen. In the vicinity of Red Lake falls hardwood and pine are said to have been cut during the winter by hordes of Swedes and carried off to their homesteads. There is no doubt that large quantities of timber are cut every winter on this reservation. A person need only go to the very margin of the reserve at any point of its boundary to hear the lumberman's axe. These Indians did hope that the government would do something for them last winter. The majority, especially the younger class, are desirous of a change to a good agricultural spot. The Red Lake Indians have always had the name of being the most peaceful and industrious of all the bands. It has been conceded to them by the government inspectors, and it is strange to them how the government can leave them so helpless, especially since their treaty, which ran out three years ago. All that the 1,500 here have to depend upon is their husbandry, pushing the majority thereby into the hunt for their sustenance. Their annuity, which is a gratuity, consists chiefly in three-feet blankets, and these never arrive until a time when they are of little use to them.

OLD OAK.

A writer in the *American Architect*, of a recent date, in an article styled "A Chat on Old Oak," says :—In the good old time long ago, when knights and barons, and abbots and monks, built their castles and towers, and cathedrals and monasteries, they made their furniture in the same spirit that they did the building, rightly, sternly, thoroughly, and well, and so it comes to pass that for centuries it has remained firm and strong, and endured the vicissitudes of ages with a fortitude that true principles alone can give. Sometimes in the old world one stumbles upon such an old relic, old and brown, staunch and firm, a venerable protest against the rubbish which in the name of furniture is made in this enlightened age. Furniture which chiefly seems only put together that it may fall to pieces at the earliest convenient season, and even so long as it exists, taxes the patience of its unhappy possessor in gathering up the fragments of it, and paying frequent bills for the regluing and adjusting of its scattered particles.

In the early days of the mediæval ages domestic architecture was in a very crude state. Few except the knights or barons were able to build, and the buildings were half fortress, half house, a great hall in which the baron and his retainers ate, and caroused, and slept, flanked by towers containing a few "bowers" or apartments for the use of the ladies. Such places were rudely furnished, a few rough oaken tables, and benches and beds, that was all ; but as property became more secure by the establishment of good governments and the making of wise laws, chivalry began to destroy barbarism. Knights built stately castles, less of the fortress, more of the home, and being less occupied in fighting with their next-door neighbors, domestic life flourished and made advances and property accumulated. The ladies spun fine linens and wools, which were woven and made into fine garments and dresses, and coffers had to be made to store these away. The knights must have drinking cups of silver and flagons for their ale, and dishes for their venison, and so they must needs make them dressers to display these upon when not in use, and thus article after article was added to the household store, and the study of the history of furniture from this age till it reached its culmination in the glorious examples of the fifteenth and sixteenth centuries is at once most interesting and delightful, and necessary to every art student of the present day. There are few examples remaining of these early ages of furniture, but we have abundant records of their shape and character from the missals and illuminations prior to the eleventh and twelfth centuries, and from that time to the present there are in various museums and collections numerous examples that may be thoroughly studied. The most impressive features of this early furniture are the truthfulness and thoroughness of its construction, its simplicity, its fitness, the severity of its lines, and the perfection of its decoration. At first simple slabs of smoothed wood were used, well pegged together with wooden pegs, and then decorated with diapers or geometrical rosettes in very low relief ; occasionally the corners were protected with corner-pieces of exquisitely wrought iron, and the hinges of the same character almost covered the door or the lid. Everything was solid, stern and severe ; by and by greater progress was made ; instead of using solid slabs of wood, first was made a strong framing honestly tenoned together, and the spaces between the framing filled up with panels or doors ; scratchings on the framing took the shape of mouldings in the simple form of beads and hollows, and the carving grew more vigorous and less geometric ; conventional flowers and foliage appeared ; then, as the workman became more skilled in his craft, turning was introduced, greater refinement of design, richer ornamentation, and so from stage to stage furniture developed from barbarism to beauty, and in castle and cathedral were erected choir stalls and screens, buffets and coffers, and presses and chairs, which have never been surpassed, and are still the wonder and the glory of this age. It is remarkable that in the whole of northern Europe as far south as Italy the favorite wood in these ages was oak ; it is a rare thing to find any other wood employed. Rigidly and sternly did these old mediævalists refuse any other wood ; it was the most fitting in qualities of strength and endurance, and thus we learn with what serious intention they built their furniture that it might last ; it passed down from father to son, from generation to generation ; it was the pride of the household, well cared for and beloved, and often upon it was carved the pictured story of some famous deed of valor, or some history connected with its possessor, or the family arms, or some wise motto or saying ; such old oak was indeed furniture, in the highest sense of the word. Like the men who built strong and true, what remains stands calmly to-day as an everlasting rebuke to an age of shams.

It is a delightful thing to possess a few pieces of this old work. As I sit in my studio the old buffet stands opposite to me ; it has become quite a familiar friend, and I often speculate as to what manner of man made it, and through what strange scenes it had passed. It came out of an old manor house near Lancashire. It is a fine example of seventeenth century work, of fine English oak of that deep rich colour age only can give. It is well and truthfully constructed, numerous honestly pegged pegs very visible. Its proportions are fine, its decoration is exquisite and quite a study, the carvings possess considerable delicacy, and the ornament is admirably placed. The scratched moulds and beads are sharp and clean, and it has a remarkable feature in the shape of a marquetry panel, which is exceedingly good in colour and very decorative, and I consider it a perfect specimen of what a piece of furniture should be in construction, utility, proportion, and decorative effect.

Of late it has become quite the fashion to collect old oak ; the revival of decorative art during the last few years has again turned attention to old work, and its value is now fully recognized ; it is becoming rare. Some years ago Belgium was an excellent field ; last year I went without finding one desirable antique, although I found lots of imitations were to be had, and were being sold as antique. There is an old man in Ghent who imitates them very cleverly ; in fact so successfully that it is really difficult to tell the spurious from the genuine. One day I went to see him ; he showed me several specimens which I pronounced shams ; he was very indignant, and assured me they were "his ancient veritable antiques." I went away, and next day I found his yard door open, and got a view through it of the old sinner very busy with a pot of ammonia and a brush staining up a new cabinet into a "veritable antique." I went into the yard and found the old fellow had quite a collection of old panels, moulds, and carvings, which he manufactured into tables and cabinets, and sold as genuine.

A SHIPMENT of lumber from Shreveport, La., was made on the 30th ult. for the state of Chihuahua, Mexico, 170 miles south of El Paso. The cars were loaded in the saw mill grounds, and will not be unloaded until their destination is reached.

THE N. B. COASTING TRADE.

The following letter appears in the *Sun*, of St. John, N.B. :—

MR. EDITOR,—I wish to call the attention of the readers of your paper to one of the results that will arise from the legislation which has been brought before Congress—to make subject to full import duties all lumber, cut in the State of Maine, now manufactured by American citizens at St. John and shipped to the American markets.

I refer to the coasting and carrying trade of St. John, which is largely supported and employed by that branch of lumber industry. Upon enquiry it is ascertained that *100,000,000* (one hundred million) feet or upwards is annually shipped here to the United States of this class of lumber, requiring the work of eighty coasting schooners of an average of one hundred and twenty-five tons. These vessels make about ten trips a year and earn on an average $600 each trip, an annual earning of $6,000 for each vessel, being in the aggregate $480,000 for the schooners employed.

Of the $600 so earned each trip, about $100 is used in the American ports to disburse the vessel and $500 is returned to St. John, the home port of the vessel. Of the $500 so returned about $300 is required for wages and provisions of the crew, harbor dues, towages, and the expense of loadlng the cargo. The balance of $200 then goes to the owner for profit and to enable him to keep in repair and reproduce these vessels as they are worn out or lost. So that out of the aggregate sum of $480,000 earned, $80,000 goes abroad, while $400,000 belongs and is strictly retained in St. John, or the immediate neighborhood of St. John, as these vessels are built by and manned invariably with St. John and St. John River men, are provisioned, outfitted and supplied by St. John supply and material men, and are owned by persons near the home port.

The result of the legislation that is now sought for will be to turn from the St. John River, which is the natural highway to the sea for all lumber grown on the Aroostook and the tributaries of the St. John that extend into the State of Maine, and compel the transportation of all such lumber to be made over the artificial highway (of railroad) to the port of Calais, where the British coaster is prohibited from carrying or being engaged in the American coastwise business, thereby ensuring to St. John the complete loss of the $400,000 a year which now goes largely to her laborers, and the balance to the benefit of her trade.

And while we cannot prevent any legislation that our American neighbours may deem expedient to enact in this behalf, still as we look on with unavailing sorrow at the destruction of this branch of our industry, we are reminded that it is our duty to file our protest against the enemy of our city's interests, who to build up a railway monopoly threatens us at one swoop with an annual loss of $400,000 in this one branch of our industries.

GEO. F. BAIRD.

St. John, June 17.

BUILDING OPERATIONS.

The Winnipeg correspondent of the Toronto *Globe* says :—The demand for lumber is greater ten times than the supply. It is being brought up and down the Red River by steamer and barge, whole train loads are being brought in from the South, and yet operations have to be suspended for hours at a time for lack of material. The supply of stone is about as defective as that of lumber. On Friday last I was talking with Mr. Baxter, formerly a celebrated contractor of Dundee, who is here trying to repair his fortunes. He had got the greater part of a stone foundation put in for a massive brick block when the architect came up and told him there would be no more material until Tuesday. Baxter turned to me and said, "Eh, man, isn't it heart breakin'? The loss o' time is bad enough, but the loss o' men is far waur." The impossibility of procuring material thus prevents contractors from giving constant employment, and entails the necessity of hiring and rehiring workmeu to complete a job. Bricks are very scarce at present, and will be so all the year through. I believe that by this time there is machinery at work with a capacity of over a million a day. The clay, I understand, is of very fine quality, being good near the city and really excellent out at Selkirk. At this latter place there is clay which if washed would make good pottery. Despite all these drawbacks building is progressing with a rapidity which is startling. The other day I am sure I saw over five hundred dwelling houses well advanced towards completion, and plans are prepared for hundreds more. Large brick business blocks will be erected just as fast as material can be procured. Indeed, the lack of material alone limits building operations. To rent a place at present is well nigh impossible. Houses are rented before a pile is driven in the foundation. Business stands command prohibitory rents. The other day I had occasion to attempt to rent a building about one hundred yards from the main street, and on a side street. The rent demanded was higher than what would have been asked for the same accommodation within one-hundred yards of the intersection of King and Yonge streets in your city. Rents, freights, the dearness of money, and the scarcity of material combine to make everything about double its value in Toronto.

THE ENGLISH TRADE.

The *Timber Trades Journal* says the trade in home-grown timber cannot be said to be in a prosperous condition at the present time. From no part of the country can we hear of a brisk demand. In the districts round Berkshire and Buckinghamshire oak is very low in price, in the eastern counties the market is said to be overstocked, whilst in Yorkshire it is reported to be quite a drug. At the Lancashire bobbin mills trade is dull and has been for months past, and the raw material is fetching low prices. The great and prolonged stagnation in the general trade of the country of a few years back, and especially the depression in the coal and iron industries, brought prices down to the lowest ebb. The hopes cherished that the revival of trade which set in last year, would stimulate the demand and lead to improvement in values have been dissipated by the fearful havoc wrought in our woodlands and forests by the late October and April gales, which have thrust an enormous quantity of wood on an already overstocked market.

Whilst building timber continues to be sent forward so freely from the north of Europe and Canada, home-grown timber cannot be said to stand in any great competition with it for constructive purposes. We hear now and again of the growing scarcity of supply in those countries which supply our market with building woods, and of the increasing cost of transport to the places of shipment ; but a glance at the total importations each year shows that any scarcity is made up by the energy with which the available stock is pushed forward, and there is little fear that the supply will fail to keep pace with the demand for some considerable time to come. It is in hardwoods that home-grown timber comes into competition with foreign wood, but for special purposes and in our local industries, native timber of good quality and dimensions will always command a good price.

GIGANTIC TREES.

We often refer to our "big trees" of California, and no one who has seen them ever doubts that they are big trees in earnest, but truly they seem almost like dwarfs in comparison with some of the gum trees of Australia. No authentic statement gives any one of them a greater height than 325 feet. But Baron F. von Mueller, director for many years of the botanical garden of Melbourne, than whom no better authority can be found, measured one tree of *Eucalyptus colossea* (the *karri* of the natives) which was 400 feet in height, one of the *Eucalyptus amygdalina*, which was 421, and another of the same species which was 476. And not far off was still another, which was not measured, but as it was certainly larger than even the last, it was believed to be at least 500 feet in height. These statements seem incredible, but their accuracy can scarcely be questioned.

During their younger years the eucalypti are slender, and it is believed that for about seventy to eighty years their growth is chiefly in height, but after that time they increase enormously in bulk. Mueller measured one which was 30½ feet in diameter at the base, and at the height of 230 feet, where the first branch was given off, the trunk had still a diameter of 12 feet. In the London exhibition of 1862 was shown a eucalyptus plank 75½ feet long by 11½ feet wide, and of proportionate thickness. Another plank was also ready to be sent from Australia to the same exhibition, but no ship could be found to bring it ; we need scarcely be surprised at this, for the plank was 167 feet long. These are not random statements, they are simply verities, and they are only incidental expositions of the wonders of that strange land.—*Boston Journal of Commerce.*

Lumber on Fire.

TRENTON, June 21.—About 2.30 this afternoon a fire was discovered in a pile of lumber in Gilmour & Co.'s mill-yard. An alarm was given, but before the fire brigade got to the yard, or the company's own appliances could be got to play on it, fanned by the high winds the fire spread with fearful rapidity until the whole of the lumber in the north-east part of the yard was in one blazing mass. Fortunately the wind was blowing away from the mill or nothing could have saved the splendid new mill now completed, and it looked as if they would go at one time, and assistance was telegraphed for from Belleville and Cobourg. The fire, after leaping through the yard, fired four of the houses belonging to the Company and occupied by their men, also a couple of other small houses. The fire brigade with the mill hands were enabled to keep the flames from working up against the wind toward the mill and other buildings, the whole of which are saved. The fire was got under control about five this afternoon, after destroying about 5,000,000 feet of lumber, four large dwelling houses and two small ones. The loss will exceed $100,000, covered by insurance. The fire is supposed to have been caused by some one smoking and leaving his pipe in the lumber pile, as a pipe was found where the fire started.

A COOPERAGE establishment at Green Bay, Wis., is having a boom. It manufactures, for the most part, tripe, fish, pickle and syrup barrels, and is not only selling all it can turn out, but is so far behind orders that it recently refused an order for 10,000 barrels. A Buffalo contract calls for 13,000 syrup barrels, another for 19 car loads of pickle barrels, and a third large order is for white ash tripe barrels. Bolts come in freely from up the bay, down the river, and by team.

THE Pensacola, Fla., *Commercial*, of a late date, says :—"One cargo of lumber for Australia, direct, is now loading in this port, and we have the best authority for stating that a line of sailing vessels will soon be engaged exclusively in this trade. Heretofore, we understand, all lumber shipped from here to Australia has gone *via* the English ports, when, after being picked, the inferior only was sent to that market. This certainly marks an important era in our affairs."

VENEERS are active and command good prices in most markets, especially in the East, and fancy burls are eagerly snapped up, as a usual thing.

THE lumber trade around Puget Sound has been so exceedingly brisk that the lumber is nearly all used up. The demand for British Columbian lumber, therefore, is rapidly increasing, and its value rising in proportion.

THE Crown Timber Office records show that during the month of May 159 cribs of timber passed through the Government slide at Portage du Fort, 6,260 cribs and 3,000 saw logs through the Arnprior slide, and 43,688 saw logs, 103 pieces of flat timber and 2,729 railway ties through the Gatineau boom.

THE Canada Lumber Company, that got out a fine lot of timber in the Adirondack region, N.Y., last winter, and put it into St. Regis river at Fort Jackson, is having discouraging work in running the sticks to the St. Lawrence. A gang of St. Regis Indians had, at a late date, succeeded in getting the drive but seven miles from the starting point.

SINCE the 17th June 5 rafts, composed of 584 cribs and 14,708 pieces of timber, have left Ottawa ; since the 19th June 56 double cribs, containing 2,800 pieces of square, flat and round timber, left the Gatineau boom, also 24,323 saw logs ; since the 21st. 1,360 pieces of timber left the Madawaska, 197 cribs and 4,002 pieces of timber passed through the Des Joachims slide for the week ending June 17th.

BY a reference to our advertising columns this week it will be noted that our old friend *Perry Davis' Pain-Killer* appers in costlier apparel than it has worn for some time past. This splendid advertisement is well calculated to both catch the eye and convince the mind. We know of no better evidence in favor of an article than the written testimony of so many well known citizens, especially the testimony of men who speak from long years of experience, as these do, in favor of the Pain-Killer. Messrs. PERRY DAVIS & SON & LAWRENCE inform us that they are compelled to renew their advertising, not because the Pain-Killer is losing one whit of its popularity, but to caution the public against the already numerous and constantly increasing number of base imitations, and other trashy mixtures, which are being sold in this market ; many of them without merit and only intended to sell on the reputation of the genuine Pain-Killer.

It has become a common practice in Canada of late, among a "certain class" of dealers, to keep in stock "*everything*," if its "*only cheap*;" particularly in the medicine line ; and in a little while they of course have a large collection of these imitation articles which they substitute for the genuine, whenever a customer happens to come along "*green enough*" to allow it. An honest dealer ought to recognize his position better, and not on any account recommend an article to a fellow-being, or influence him in any way in buying an article he knows nothing about, except that it pays a good profit. Carelessness in this way may cost a life, and no man has a right to so trifle with matters of such great importance. PERRY DAVIS' PAIN-KILLER has been before the public for so many years, and has steadily grown in public favor, till we are satisfied there is no better cure for our thousand little ills than PERRY DAVIS' PAIN-KILLER, and we heartily recommend it.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on May 31st, 1881 and 1882, and also the Consumption for the month of May, 1881 and 1882 :—

	Stock, May 31st. 1882.	*Stock, May 31st. 1881.*	*Consumption for the month of May 1882.*	*Consumption for the month of May, 1881.*
Quebec Square Pine	58,000 ft.	536,000 ft.	62,000 ft.	107,000 ft.
" Waney Board	150,000 "	186,000 "		
St. John Pine	3,000 "	5,000 "	—	3,000 "
Other Ports Pine	25,000 "	48,000 "	3,000 "	8,000 "
Pitch Pine, hewn	707,000 "	569,000 "	240,000 "	214,000 "
" sawn	347,000 "	340,000 "	221,000 "	197,000 "
" planks	67,000 "	97,000 "	30,000 "	49,000 "
Red Pine	14,000 "	32,000 "	8,000 "	2,000 "
Dantzig, &c., Fir	108,000 "	176,000 "	51,000 "	51,000 "
Sweden and Norway Fir	4,000 "	9,000 "	4,000 "	—
Oak, Canadian	214,000 "	366,000 "	29,000 "	34,000 "
" Planks	68,000 "	147,000 "	80,000 "	26,000 "
" Baltic	53,000 "	92,000 "	7,000 "	9,000 "
Elm	33,000 "	27,000 "	4,000 "	5,000 "
Ash	9,000 "	4,000 "	4,000 "	—
Birch	40,000 "	102,000 "	21,000 "	44,000 "
Greenheart	61,000 "	56,000 "	24,000 "	8,000 "
East India Teak	63,000 "	8,000 "	20,000 "	11,000 "
Quebec Pine Deals	3,510 stds.	7,361 stds.	1,509 stds.	1,181 stds.
" Spruce "				
N. B. & N. S. Spruce Deals	7,220 "	13,680 "	4,975 "	6,309 "
" Pine "	380 "	1,080 "		
Baltic Deals	2,220 "	5,080 "	204 "	574 "
" Boards	100 "	400 "	—	61 "
" Flooring Boards	3,080 "	3,760 "	1,960 "	1,968 "

F. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

LEATHER BELTING

First Prize, Provincial Exhibition.....Ottawa, 1875
First Prize, Provincial Exhibition..... Hamilton, 1876
First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition.....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

L21

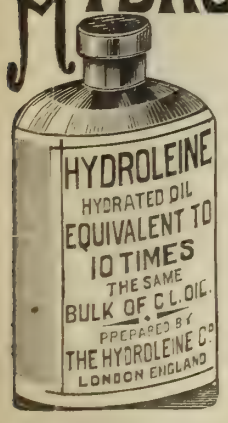
81 Colborne Street, Toronto

THE *Timber Trades Journal*, of June 10th, says:—The timber trade must be admitted to be at the present time, as far as relates to London, very *quiescent*. If you meet a man, whom you are accustomed to find very busy at this time of year, with bills of lading, invoices, and foreign correspondence, the chances are that he will tell you that he is "buying nothing, and as for selling he doesn't know where to look for a customer." This, of course, is not to be taken literally, nor intended to be so, but it indicates the spirit of the trade just now, or rather its want of spirit; and if we look at what is doing on the coast, east, west, north, or south, no animation is discoverable anywhere. Prices at the public sales are everywhere a little easier, and, though there is not much retrogression, something is perceptible in that way, and goods that are not too plentiful, and ought to fetch remunerating prices, excite no competition, and go sometimes miserably low in comparison of what they ought to bring.

THE *Northwestern Lumberman* says it is announced that F. Weyerhauser, of Eau Claire, Wis., a gentleman already having connection with numerous logging and lumber companies, has secured the refusal, until August 1, of the Cornell University's pine lands in Wisconsin, aggregating 200,000 acres, which are more or less heavily timbered, and scattered in sections through the western and northwestern parts of the state. The statement receives some substantiation from the fact of the withdrawal from the market of the lands in question.

THE steam barge *Araxes* struck a rock at Prentis Bay and sank. Part of her cargo of lumber was taken off, after which she slid into deep water and is now about decks too. The tug *Kate Williams* left with a submarine diver and a 14-inch Worthington pump to raise the steam-barge.

HYDROLEINE



(HYDRATED OIL.)

An artificially digested Cod Liver Oil.

For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

—o—

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artificial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

For sale by all Druggists.

ESTABLISHED 1874.

THOS. GRAHAM

Manufacturer of Every Description of

FILES and RASPS

HAND CUT FILES made from the Best Refined English Cast Steel and *Warranted Equal* in every respect to the best English *brands.*

NEW FILES neatly put up in labelled boxes for the trade; to whom *bottom figures* will be quoted.

Old and Worn-out Files *re-ground* and *re-cut* by hand, and made equal to the New File for use, at prices that will effect a great saving to all consumers of Files

N.B.—Every File Guaranteed. Price List on application, and a Sample Order Solicited.

Factory & Office :—Sherbrooke St.,

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J. T. LAMBERT,

Lumber and Commission Agent.

ORDERS FOR DIMENSIONS AND ALL OTHER KINDS AND GRADES OF

American Lumber

PROMPTLY ATTENDED TO.

Timber Limits and the Square Timber Trade a Specialty.

Office, Wellington Street, OTTAWA. 1Ltf

IRWIN & PHILP

Commission Lumber Dealers,

FORWARDERS,

Shipping & General Agents

PORT HOPE.

1Ltf

GRATEFUL—COMFORTING.

EPPS'S COCOA

BREAKFAST.

"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*

Made simply with boiling water or milk. Sold in packets and tins only (½-lb. and lb.) labelled

JAMES EPPS & CO., Homœopathic Chemists, London England. 1L14

THE MONTREAL SAW WORKS

General Mill Supplies always on hand.

MONTREAL,

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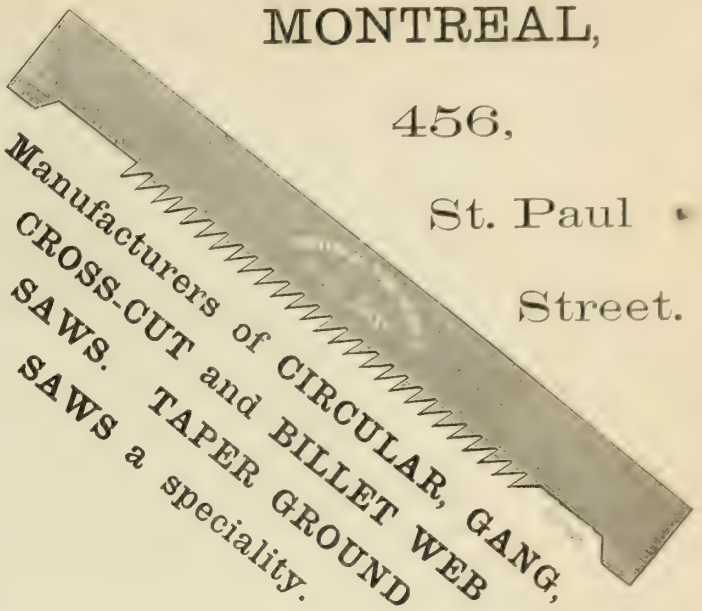

General Mill Supplies always on hand.

Address all correspondence to Chas. M. WHITLAW,

1L20 MANAGER.

Drake Brothers' Box Mill,

Provost Street Extension, New Glasgow, Pictou County, N. S.

SPRUCE, PINE AND HEMLOCK SHINGLES

F. H. DRAKE. 1L17 N. H. DRAKE.

J. F. LAWTON

Alexandria Saw Works

SAINT JOHN, N.B.

Saws of all kinds manufactured from the BEST CAST STEEL that can be procured in any Market.

EVERY SAW WARRANTED.

SAWS REPAIRED in the best manner and on Short Notice.

Send Address for Price List, Terms, &c.

1L17 J. F. LAWTON.

ROBERTSON'S

LIGHTNING CANT-DOG

STEEL RING,

The Lightest, Cheapest and Most Durable Cant-Dog in the World.

PETER ROBERTSON,

Chaudiere - - - Ottawa.

LOGGING—STEAM vs. HORSES.

The following letter appears in the *Northwestern Lumberman* :—

We find a general impression that steam logging is profitable for very large contracts, but that sledding is cheaper for small operations. This is a question which will interest your readers, and we give below figures for comparison.

We first state the cost of getting in 12,500,000 feet of logs on a five mile haul by sledding on snow or iced tracks. Allowing an average for each two-horse team of 250,000 feet for a season of 90 good sledding days, the investment will be about as follows :—

50 two-horse teams, at $400 each team	$20,000
50 sleds and harnesses, at $70	3,500
Grading five miles of road, say	4,000
	$27,500

OPERATING EXPENSES.

50 drivers at $40 per month, cost of board included, for four months	$ 8,000
Oats and hay for 50 teams, at $1 per day for each team, for six months	9,000
Expense of pasturing, six months	775
Blacksmith, harness and waggon mender and stable man, six months	1,350
Repairing road	1,000
Yearly expense of replacing horses, harness and sleds, say 20 per cent. on $23,500	4,875
	$25,000

Or, in round numbers, the cost of sledding may be reckoned to $2 per 1,000, provided there is neither too much nor too little snow, that work is not interrupted by storms or thaws, and that the season is as perfect as if made to order. The actual average cost of sledding from year to year, taking the seasons as they come, is probably from $3 to $4 on hauls of three to five miles.

The investment required for putting in 12,500,000 feet of logs over a five mile track in one winter is about as follows :—

Iron rail, 16 lbs per yard, spikes and splices for five miles	$ 8,700
Cross-ties, and grading and laying	6,500
One locomotive and 20 cars	8,300
Tools and incidentals	1,500
	$25,000

OPERATING EXPENSES.

10 loaders at $40 per month, cost of board included, for 4 months	$ 1,600
2 unloaders at $40 per month, cost of board included, for 4 months	320
1 engineer and 1 fireman, $115 per month, cost of board included, 4 months	460
1 carpenter, at $60 per month, board included, 4 months	240
5 trackmen at $40 per month, board included, 4 months	800
1 brakeman at $40 per month, board included, 4 months	160
Fuel, 1 cord per day, at $1, for 90 days	90
Oil and repairs for locomotive and cars, $15 per day, for 90 days	1,350
Depreciation for year on rails, cars and locomotive, allow 10 per cent on $17,000	1,700
	$6,880

Or 55 cents per 1,000 feet to get in 12,500,000 feet of logs by steam in four months' time. The locomotive can do this work easily in three months, which would reduce the cost to about 44 cents per 1,000 feet. These figures must be moderated by each operator to suit the length of haul, and the quantity of logs to be used, but in practice the advantage of steam power is even greater, as shown by the following examples of roads each operated by a locomotive built by our firm at Pittsburgh :—

A road eight miles long was built, and 18,000,000 feet got in over it in one year. The largest day's haul was 247,000 feet, which cost 25 cents per 1,000 to haul. The average cost was less than 50 cents.

Another road eight miles long, operated 10 months in the year, got in 60,000,000 feet in one year, at an average cost of 54 cents per 1,000 feet, equivalent to about 40 cents per 1,000 feet for a five-mile haul.

Another road three and one-half miles long, got in 22,000,000 feet in five months, during which the road was shifted to reach another tract.

Another road, eight and one-half miles long, got in 38,000,000 feet in nine months, running night and day.

It can be claimed fairly that for hauls of from three to five miles, for getting in from 5,000,000 to 10,000,000 feet in one season, steam logging, provided good locomotives and cars are used, is cheaper than sledding, both in original investment and in operating expense. Other incidental advantages of steam are certainty of operation, as no snow, too much snow, mud, winter and summer need not be considered. In sledding operations, more money may be spent in waiting for the snow, which after all may fail, than it would cost to haul in the logs by steam; the output can be doubled by hauling nights; the haul may be doubled at but slight extra cost; from 20 to 25 per cent more logs can be got in from the same land, as the low cost of hauling makes poorer grades profitable to market; timber hurt by windfall or fire can be got in at once and marketed, instead of being left to worms and rot.

H. K. Porter & Co.

HEMLOCK OR PINE?

Hemlock is well adapted for any of the coarser uses in building, where small timber is required. It makes a better joist and a better scantling than pine, for the reason that it is stiffer timber, and holds a nail so firmly that it is difficult to draw one after it has been driven. In sand it is more durable than pine, but in clay soil it is not so good. It is fully the equal of pine for durability in positions where it is exposed both to wet and dry, but while as good, is no better when always under water. It is cheaper, selling on the market by the cargo, at about $2 less than dimension sizes of pine. It is not adapted to so many uses as pine, and while better for graneries, for the reason that rats and mice avoid it, being unable to gnaw through it, is not in thin lumber so well adapted for use. It is not more in favor, because in the past pine has been cheap and plentiful, and while better known is easier worked. It is in good repute in the eastern states, where it largely fills the place of pine for coarse uses, and is to some extent used for finishing purposes, but we must confess to prejudice against it in this connection. As pine becomes scarcer hemlock is coming more into favor, as may be seen from the fact that stumpage which was held a year ago at 25 cents per thousand is now selling for $1. The main disadvantages of hemlock consist in a disposition to shake and unsoundness, and it is then comparatively worthless, its culls being the meanest lumber known. We have knowledge of hemlock shingles put upon a barn roof 40 years ago and in as good condition to-day as pine shingles put on some years later. The shingles curl enough after a rain to permit of their drying out readily so that they do not decay as speedily as pine, while flattening to their place at once under a shower. For actual value as studding joist and granery uses, hemlock is worth more money than pine, for stiffness, durability and freedom from the encroachments of vermin, and the prejudice against it because of its stiff slivers, gives way rapidly under experience in its use.—*Northwestern Lumberman.*

TIMBER NEWS.

The Ottawa *Citizen*, of June 13th, says :—The following is a statement of the timber which passed through the undermentioned slides and works since the 2nd inst. :—

PORTAGE-DU-FORT SLIDE.

1 raft belonging to David Moore, composed of 159 cribs.

ARNPRIOR SLIDE.

Rafts.	*Owners.*	*Cribs.*	*Saw Logs.*
1	Hilliard & Dickson	28	785	....
1	Jonathan Francis & Co	145	3,500	....
1	Wm. McKay	70	1,975	....
	Perley & Pattee	....	....	2,000
	J. R. Booth	....	....	1,000
		443	6,260	3,000

THROUGH GATINEAU BOOM.

Owners.	*Saw Logs.*	*Flat Timber.*
Gilmour & Co	4,986	...
G. B. Hall & Co	24,642	...
Hamilton Bros	3,082	...
W. C. Edwards & Co	4,135	103
J. McLaren & Co	6,841	...
	43,688	103

And H. B. Rathbun & Son 2,729 railway ties.

EFFECTS OF EMIGRATION.

The *Timber Trades Journal* says :—Another question which bids fair to influence somewhat the price of wood goods in the near future is the extremely large proportions to which the emigration movement from Sweden to America has attained of late. The numbers of the working classes that are leaving must, within a short time, raise the price of timber considerably. As soon as the saw mill industry gets busy we shall probably hear of a deficiency of workmen and attempts to obtain higher wages.

The report of the Stora Kopparbergs Bergslag being in negotiation for a piece of ground at the mouth of the Dal River suitable for a saw mill site has been confirmed, and it is understood that the transaction is now closed. The piece of ground obtained is situated at Harnas, close to Skutskar, where the Siderfors company have their shipments. This step is supposed to be preparatory to the removal of the saw mill to the coast, and has been taken to avoid the heavy railway freight from Korsnas to Gefle.

Several extensive new saw milling concerns are reported as having got lately into full work in different parts of the country; one of these is a new mill, with a capacity of about 5,000 standards annually, erected by the Hellefors Bruks Aktie Bolag on their property near to Filipstad! They own a large quantity of growing wood intersected by the Bergslagernas railway, and will presumably ship their produce from Gothenburg. Another mill is the under taking noticed before in my letters as having been erected in Gefle Bay by the owners of the Ockelbo Works; this concern has also commenced operations, and is estimated as being able to produce 4,000 to 5,000 standards annually. The firm is the owner of extensive forests in the Gefle district, and able to supply the mill in question with logs for a long period. A third mill is that lately erected by the Jemtlelands Sangbruks Bolag along the new line between Sundswall and Drontheim, near Morsill station, west of Ostersund. This concern will ship at Drontheim, in Norway, and their production will be 5,000 to 6,000 standards annually. The company is said to consist principally of shareholders from Bergen, in Norway.

I should not be surprised to hear of a lively speculation in growing wood taking place in the district whence the Norwegian company referred to obtains logs. The Sundswall people have no doubt done well in the surrounding district, but signs are not wanting that the attractions of an ice-free harbor will ere long cause considerable competition for growing wood reachable by the new line of railway. This railway is to be opened in its entirety by the king about the 20th of July, in connection with which an exhibition of the products and industries of Norrland is to be held at Sundswall. As forest products and manufactures are more important than anything else in Norrland, it may be taken for granted that they will play an important role in the exhibition, thus rendering the same extremely interesting to the trade.

THE TIMBER TRADE OF BORDEAUX.

The *Timber Trades Journal* says the principal feature of this week's timber trade is the arrival of some German hewn timber and balks, which have been eagerly looked forward to for several months. From the German ports they write that there are still many contracts to carry out, owing to the high rate of freight on account of the scarcity of vessels, for which reason, and also owing to the upward tendency of prices, it will be almost impossible to obtain any shipping orders for some time to come.

The scarcity of long lengths and heavy average from the German ports leads buyers to direct their attention to the American supplies, where they will find all kinds of dimensions, even the largest ones, at, as we think, more suitable prices.

SWEDISH PROSPECTS.

The *Timber Trades Journal* says :—Speaking of the present state of the saw mill interests in Sweden, we learn that it is likely to expand considerably this present season, as the letter referred to mentions no less than three new establishments of the kind just got into full work, which are estimated to add altogether about 15,000 standards to the customary annual production. On the other hand, the plentifulness of money has again given life to forest speculation in Sweden, which had been very quiet since 1874; and when capitalists begin to bid against each other for that kind of property it looks like an enhancement of the value of everything connected with it, and they still appear to believe that prices will not give way. There is always this point in their favor, that Swedish shippers can always get a profit in our markets when most other shipping countries are losing on the current prices of their wood. The price of spruce at the public sales in London and Liverpool will seldom, on an average, leave £4 per standard to the shipper; yet for whitewood of same dimensions the price is £6 10s. f.o.b. in Sweden, and the charges of getting the goods forward to the shipping ports are understood to be greater in America than in Sweden. Spruce has given way a little in Liverpool at the last sales, but it is a wood that on the west coast is generally in good demand. On that side it is not to be driven off by the whitewood of Northern Europe, but on the east coast it gets no secure footing.

Queer Geography.

The following item which appears in the *Stillwater Lumberman*, published in the town of Stillwater, Minnesota, will be read with some ammusement :—

"On the line of the Northern Pacific, between Rat Portage and Winnipeg, large quantities of lumber and ties have been destroyed by recent forest fires."

Some of our friends to the south of the line, seem determined to annex us, whether or no.

Missouri is better supplied with forests than any other western state north of Arkansas. One-fourth of its area is covered with trees, and in some districts, particularly the river bottoms, the swamp lands of the southeast, and the Ozark mountain regions, these trees are of the most valuable character.

The Belleville *Intelligencer* says we have received a specimen of an artificial material which is intended to take the place of wood for all purposes for which wood is now used. It is made of straw ground to a fine pulp and subjected to a tremendous pressure—the result being a material closely resembling wood, though harder. It is manufactured by the Straw Lumber Co., of Lawrence, Kan.

A Boston trade circular says eastern lumber is in fair request, but prices are easier on spruce and hemlock. Coarse pine boards, dry, are wanted; lath and sawed cedar shingles are scarce and high. The scarcity of small vessels adapted for this market, and the fact that hardly any of this class have been built the last few years, promises to keep freights firm during the season. There has been considerable delay already in shipping the orders, owing to a lack of suitable vessels.

The St. Louis *Republican* says the people of the United States little dream when they skim the cream from the virgin soil of the west and send it to Europe in the shape of wheat and fell the monarch trees of their forests by the millions every year, that they are making wanton drafts on the sources of their wealth which it will take generations of careful effort to repair. They, and perhaps their children, may not suffer any great inconvenience from the loss of the riches they are so profligately dissipating; but their children's children will hardly pass away without suffering by the great mistake.

A Correspondent of the Montreal *Gazette*, writing from St. John, N. B., says :—The lumber business is good. Stream driving is excellent, on account of the floods, and few logs will remain on the banks and bars this summer. Our harbor and the North Shore ports are full of ships after deal cargoes, and it is noticeable that the percentage of steamers is steadily increasing. We have a dozen of them at a time here, and there are nine or ten in the Miramichi also, this being their first year in that river. Many of them came here immediately on returning to England from Indian voyages, and some of them are to return there after carrying the cargoes they are now loading. They are all English, while most of the sailing vessels that came for deals are Norwegian barques.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

WHAT BECOMES OF THE LUMBER?

The *Northwestern Lumberman* says:—The census figures for the decade ending 1870, including a period covering the war of the rebellion, showed that a population of 35,000,000, a large population, in fact, probably one-half of whom were withdrawn from peaceful pursuits and were engaged in the work of destruction rather than of upbuilding, required an average of not far from 400 feet of lumber *per capita* annually. It is safe to assume that the era of peace and rebuilding, which marked the subsequent decade, added largely to the demand for consumption, and it is no stretch of the imagination to assume that, with the revival of business industry which followed upon the great and prolonged panic of 1873 to 1879, setting again in motion the wheels of industry and the checked current of immigration, an average consumption of 600 feet of lumber *per capita* has not only been reached but exceeded.

CEDAR vs. PINE.

Recent repairs upon the Kangaroo lake bridge at Baileys Harbor, Wis., have demonstrated the relative value of pine and cedar as to strength and durability. The bridge had been built some 12 years, and had become insecure and dangerous. The difficulty was found to rest mainly in the fact that pine timbers had been used whenever possible, in place of cedar, which was the other element in the construction of the bridgd. In many instances the pine timbers were broken and rotten, while cedar timbers half the size were perfectly intact, sound and secure. At one point a pine log 15 inches in diameter had broken square off and furnished no support whatever, and two long cedar stringers 10½ and 11 inches throught, respectively, withstood the strain brought to bear upon that portion of the bridge. heavy loads crossing frequently.—*Northwesteru Lumberman.*

PRESERVATION OF WOOD.

A new wood preserving process has been invented in France by M. Jacques. He first impregnates the timber thoroughly with a simple solution of soap, mixed with an acid—preferrably phenic acid. This causes the fermentation, in a few days, within the wood, of a fatty acid, which is insoluble in water, and enters the remotest fibres. The reaction of the acid on the soap does not take place until a portion of the water has evaporated. It is claimed that more perfect impregnation can be had in this way than with creosote, and there is no danger of the washing out of the preservative from the exposed surfaces, as when sulphate of copper is used. The government commission on technical railroad operation in France is said to favor this process. —*The Metal Worker.*

THE Kirby-Carpenter Company, at Menominee, Mich., is running its mills to their outside capacity, having, during a recent week, cut 2,334,364 feet of lumber. The company has piled 7,000,000 feet, and proposes to pile more. This fact is supposed to be a straw, showing a tendency of manufacturers to throttle the supply and prevent it from streaming out any faster than it is needed. They intend thus to get the "bulge" on the market.

A MEETING of lumbermen was recently held at Bay City, Mich., for consultation in regard to the feasibility of the formation of a booming company there for the picking up of stray logs at the mouth of Saginaw river. It was stated that on an average 125 logs are floating loose at the mouth of that river every day, and it was desirable that somebody have authority to pick them up, assort and deliver them to the owners. A committee was appointed to make legal investigations and report.

THE manufacture of shingles in eastern and northern Maine is reported to have been visited with increased prosperity. As an instance in this direction, Cutler & Eddy's mill, at Bradley, Me., runs night and day, and the firm has another mill in brisk operation at Van Buren, 200,000 shingles being manufactured daily, and the demand is ahead of the production of both mills. At Van Buren the logs are got from the New Brunswick side, and are admitted free of duty, being sawed by Americans on this side.

THE Aroostook and Tobique drives, says the Fredericton *Herald*, are all in. There is now about 80,000,000 feet of lumber in the Douglas booms and about 20,000,000 feet in the booms below the city. When Connors' and Cunliffe & Stevens' drives are in, the total amount of lumber to be taken care of by the Boom Company will reach 130,000,000 feet, or about the same as last year.

IF NEARLY DEAD after taking some highly puffed up stuff, with long testimonials, turn to Hop Bitters, and have no fear of any Kidney or Urinry Troubles, Bright's Disease, Diabetes or Liver Complaint. These diseases cannot resist the curative power of Hop Bitters; besides it is the best family medicine on earth.

MIDDLE AGED MEN often lack vigor, this can be restored by that great brain and nerve food, known as Mack's Magnetic Medicine. Read the advertisement in another column of to-day's paper.

"The secret of three is all the world's," but it is no secret that the demand in Canada for pens of the Esterbrook Steel Pen Company's make is steadily increasing. No stationer's stock is complete without them.

J. Werts & Son, Freedomville, Ohio, write:—"This informs you that we have sold all those Baxter's Mandrake Bitters you sent us. We sold the last three bottles to-day. Two of our customers disputed about which should have the last bottle, and we decided the matter by promising to send for more at once. The Bitters give universal satisfaction to all who have tried them. We want you to send us twelve dozen forthwith." Baxter's Mandrake Bitters never fail to cure all diseases of the Stomach, Liver and Bowels. 25 cents per bottle. Sold by all dealers in medicine.

TRENT NAVIGATION.

FENELON FALLS, BUCKHORN RAPIDS AND BURLEIGH CANALS.

NOTICE TO CONTRACTORS.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Trent Navigation," will be received at this office until the arrival of the Eastern and Western Mails on WEDNESDAY, THE FIFTH DAY OF JULY NEXT, for the construction of two Lift Locks, Bridge Piers and other works at Fenelon Falls; also, the construction of a Lock at Buckhorn Rapids, and for the construction of three Locks, a Dam and Bridge Piers at Burleigh Falls.

The works at each of these places will be let separately.

Maps of the respective localities, together with plans and specifications of the works, can be seen at this office on and after WEDNESDAY, THE TWENTY-FIRST DAY OF JUNE NEXT, where printed forms of Tender can be obtained. A like class of information relative to the works at Fenelon Falls will be furnished at that place, and for those at Buckhorn and Burleigh, information may be obtained at the resident Engineer's office, Peterborough.

Contractors are requested to bear in mind that Tenders for the different works must be accompanied by an accepted bank cheque, as follows:—

For the Fenelon Falls work..... .....$1,000
" Buckhorn Rapids work..... 500
" Burleigh Falls work..... 1,500

And that these respective amounts shall be forfeited if the party tendering declines entering into contract for the works at the rates and prices submitted, subject to the conditions and terms stated in the specifications.

The cheques thus sent in will be returned to the different parties whose tenders are not accepted.

This Department does not, however, bind itself to accept the lowest or any tender.

By order,
F. BRAUN,
Secretary.

Department of Railways and Canals,
Ottawa, 22nd May, 1882. d127-3L11

CENTRAL IRON WORKS.

Law, McLean & Brayshaw

Simcoe Street,

PETERBOROUGH.

CASTINGS of every description in Brass and Iron.

All sorts of MACHINERY for Saw and Grist Mills.

STEAM FEED for Circular Saws.

Also Saw Gummers, Cutters, Double Upset Swages, and all Saw Tools.

Send for Price List. L4

Simcoe House,

CORNER FRONT and SIMCOE STS.

TORONTO, ONT.

Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms.

The Most Convenient House to all Trains.

1L21 GREEN & SON, Proprietor.

The American Hotel,

BARRIE, ONT.

Collier Street, Adjoining the Market.

RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.

Every accommodation for Commercial and LUMBERMEN.

1Ltf W. D. McDONALD, Proprietor.

J. K. POST & CO.

LUMBER MERCHANTS

And Shipping Agents.

OSWEGO, N. Y. 1Ltf

FOR LUMBERMEN!

Poleroad Tramway Cars

Will Carry 2,000 Feet of Hardwood Lumber per Load

Drawn with one span of horses, either summer or winter, on Round Pole Roads, which are cheap and speedily built.

The woodwork of the Car can be built by any handy man in a couple of days. The undersigned supply the ironwork complete, including bolts and washers and a diagram of car.

The wheels are adjustable on its axles to accommodate itself to any bend in the pole. The weight of ironwork is 2,250 lbs. Price on application to

C. NORSWORTHY & Co.,

ST. THOMAS, Ont.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills.

L7tf

UNION FOUNDRY

Union Street, - - - Carleton,

Warerooms, Water Street,

ST. JOHN, N. B.

Allan Brothers

(Late of Harris & Allen)

MANUFACTURERS OF ALL KINDS OF

Steam Engines

AND

MILL MACHINERY.

Ships Windlasses, Iron Capstans

and Ships CASTINGS of all kinds.

Ships Cambooses & Cabin Stoves

COOKING AND HEATING

STOVES,

Shop, Office and Parlor Stoves, and Franklins

Agricultural Implements.

BRASS CASTINGS.

Tin, Sheet Iron and Copper Ware for SHIP and
1L18 HOUSE use.

E. S. VINDIN,

Commission, Shipping, Forwarding and General Agent.

LUMBER MERCHANT

Office, Tempest's Block, Port Hope. 1L1

J. & F. N. TENNANT

Dealers in all kinds of

Lumber, Lath & Shingles,

Office, Union Loan Building,

Toronto Street, Toronto.

1L11

17 YEARS' EXPERIENCE

HOWIE'S DETECTIVE AGENCY

OFFICES, 32 KING STREET EAST,

TORONTO, ONT.

All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private persons. This agency does not operate for reward. 1L67

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(Made to Order and on hand.)

MILL PICKS DRESSED in a first-class style Those shipped by rail will be returned promptly.

Lance Tooth Saws Gummed. AXES WARRANTED. 3L24

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MACK'S MAGNETIC MEDICINE.

Is a Sure, Prompt and Effectual Remedy for *Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Spermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs.* The experience of thousands proves it an INVALUABLE REMEDY. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is *the cheapest and best* Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at **50** cts, per box, or **12** for **$5**, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont.,

Sold by all Druggists in Canada. L23

N. H. DOWNS' ELIXIR

N. H. DOWNS'

Vegetable Balsamic

ELIXIR!

This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:

Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,

and every species of oppression of the **Chest and Lungs.** In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that

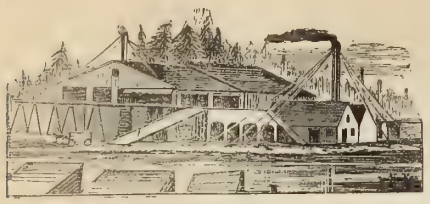
CONSUMPTION

is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry; then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all **morbid irritations and inflammation** from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,

IT HEALS THE ULCERATED SURFACES

and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate or astringent articles, which are also drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the CAUSE, generally destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price **25cts.** and **$1** per bottle. Sold everywhere.

HENRY, JOHNSONS & LORD, Props,
MONTREAL, P. Q.



THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. JULY 1, 1882.

RATHBUN & SON are shipping about 18,000 ties weekly from Kingston.

TEN large spars, each 70 feet in length, have been delivered by the Grimes Bros., Aylmer road, on the Chaudiere flats, for electric light purposes.

THE Lindsay *Post* says a large quantity of maple logs are passing up the river, being floated on scows. At Port Perry they will be cut up for Paxton, Tate & Co.

THE lumber and timber that reached Pittsburgh, Penn., by a recent rise in the Alleghany, amounted to 20,000,000 feet. The drive realized —for pine boards, $16 to $22 a thousand ; hemlock boards, $9.50 to $11 a thousand.

THE Quebec correspondent of the *Moniteur du Commerce* says that the English Company which has bought the mills and limits of Montmorency for $1,500,000, has obtained an extension of time till December next to close the bargain.

THE Detroit *Marine News* says twelve miles about Duluth will cut about 100,000,000 feet of lumber this season, all of which goes west from the point of manufacture over the Northern Pacific road. A considerable portion of the product of the mills is shipped to Winnipeg.

IT is announced that R. S. & G. W. Henry and the South Branch Lumber Company have withdrawn from the Lumberman's Exchange in Chicago and intend to fix their own prices for lumber. The result will probably be to run down the prices of lumber, and may possibly break up the Exchange.

THE Lindsay *Warder* says Mr. T. Burtrow is filling a contract made with Mr. Boyd and Messrs. Strickland Bros., to supply them each with about eight thousand feet of heavy timber, to be cut into lumber. The timber is brought from Haliburton, Minden, and other places in the back country. It is just being placed on cars in this town for shipment by the Midland Railway to Port Hope.

WOOD well saturated with oil will not shrink in the driest weather. Boiled linseed is the best for general use, but even crude petroleum is of great advantage.

AT Blackshear, Ga., J. M. Lee has discovered a new method of extracting spirits of turpentine from saw dust and the refuse of the mills, employing a sweating process. By this means each cord of material operated upon yields 14 gallons of spirits, three to four gallons of resin, and a quantity of tar. The spirits produced are characterized by a different odor than when they are the result of distillation.

THE collecting of laurel and other roots is an important industry in the mountains of North Carolina and East Tennessee, from whence they are shipped to Philadelphia and Boston for the most part. They are employed in the manufacture of door knobs and pipe bowls. A single root will often weigh from 75 to 150 lbs. There is a never silent demand, and a ton of the roots will bring a good round figure.

THE Ottawa River boom company, which, it is said, has not been doing much in the way of profit for three or four years past, will, to judge from the number of breakages to booms, and the consequently large number of escaped logs, probably be in a position to compensate for previous losses. It is said that an unprecedented number of drift logs have passed down the river during the past two or three weeks.

IN excavating the clay on Lord Normanton's estate near Crowland the workmen have exposed about three acres of a subterranean forest, ten feet below the surface. Some of the trees are in an admirable state of preservation, one gigantic oak measuring 18 yards in length. The trees are in such a condition that the oak can be distinguished from the elm, while a kind of fir tree seems to be the most abundant, the wood of which is so hard that the trees can be drawn out of the clay in their entirety of root and branch.

THE Chicago *Northwestern Lumberman* says the conviction is general that the prices asked are too high to enable the yards to handle with profit, and purchases are generally made by those who, having large gangs to keep at work, buy what is necessary for that purpose. There is no appearance of buying because the stock has a profit in it, and consequently no buoyancy to the market. The situation is, in fact, anomalous in the extreme, those who offer claim that they cannot afford to take less, while those who buy do not do it for the profit they can see in it, and yet the one purchases and the other gets his price, or pretty near it.

THE *Timber Trades Journal* says :—In the case of beech timber a striking illustration of the effect of local consumption is seen in Buckinghamshire and district, where this wood is extensively used for chairmaking, and other local industries. 1st quality wood sold at 2s. 3d., 2nd quality at 1s. 6d., and 3rd quality at 8d. per foot cube, whilst in most other parts of the country it averages, 1st quality, say 11d., 2nd quality 8½d., 3rd quality 6d. In some parts of Ireland, as in county Louth, 1st quality is only worth 4d. per foot, and in Lanarkshire it is at the present time said to be unsaleable ; 6d. per cubic foot is all that is offered for trees 23 inches on the side, and the market is completely glutted.

A DESPATCH from Marquette, dated June 24, says on Thursday night the propeller *Kincardine*, bound for Chatham, with a cargo of lumber, broke her rudder chains and struck one of the cribs near the new lighthouse. When she was put on her course up Lake St. Clair, it was found she was leaking to such an extent that the captain decided to run her ashore near Wingall Point lighthouse. She now lies with her stern in twenty-four feet of water, and her bow on the bank. She will be raised with screws. The *Kincardine* belongs to J. M. Jones, of this city, and is insured in the United States Company, of New York, for $6,000. She rates Bl., and is valued in the Inland Lloyd's Hull Register at $7,000.

POLE ROADS.

To the Editor of the Canada Lumberman :

SIR,—Admitting that iron tramways are best adapted for large lumbering operations, there are hundreds of places in Canada where pole roads can be built and operated to great advantage, where the expense of an iron road would be beyond the means of a large majority of lumbermen that require them. If one-half the pains were taken to select good, hardwood poles and laying them properly that is necessary to lay iron tramways, no objection could be raised against them ; whereas, the speed with which they can be built, and the expense are so trifling, compared with the cost of iron roads, that men of limited capital can construct them for their use, if not in conjunction with neighbouring mills. Again, the broad, concave wheels, fitting the logs with the large amount of play on the axles, make it difficult for a car to leave the track, and enables the cars to turn a shorter curve than is possible to do with a flat track. Owing to the past winter being such an open one, the majority of mill men have not been able to stock their mills, and believing that the construction of this class of roads is of vast importance to the country, and financially of great advantage to those operating them, I would call their attention to these facts,—that a good road can be built for $120 per mile, and planked with slabs and covered with saw dust will cost $50 more ; that one team of horses will draw a car with 2,000 feet of logs, and make two trips a day over a road of eight miles ; that they have switches and branch roads the same as street railways ; that when the track is laid 6½ feet apart it makes a good waggon or sleigh road.

THOS. MOORE.

FOREST FIRES.

The recent destructive forest fires on Long Island have caused the New York *Herald* to descant on the carelessness of the American farmer. It says the "forests" that burn are generally small tracts of wooded land which are parts of farms, but as they are utterly left alone except when the farmer wants firewood, they are full of undergrowth, brush-heaps and dead leaves. Forest fires are scarcely ever heard of in Europe, for the poorest and busiest peasant who owns a bit of land finds time enough to cut away the undergrowth, remove dead trees and fallen boughs, and even to cart away some of the leaves to his compost heap. German and English farmers who come here begin preserving their wooded lands, but too often they fall into the shiftless American way, and frequently pay the penalty. Any farmer can prevent fire on his own forest land ; he can clear away undergrowth and leaves, the work being easiest done in winter, when he has little to do on any other part of the farm, or he can fence this ground and turn his cattle into it to eat or break down small growth and trample leaves to pieces and into the ground. Both plans have been tried with great success, and not found costly. Of course in great wooded tracts of hundreds and thousands of acres, such preventives would be impracticable, but these are not the lands most frequently burned over.—*Northwestern Lumberman.*

STAINING WHITEWOOD.

An English firm proposes the following decorative process for staining whitewoods : The surface to be decorated is made as smooth as possible, and is then covered with one or two coatings of size, prepared by adding to glue size, of just sufficient strength to form a jelly, a little egg albumen and a small quantity of alum. When this is dry and thoroughly hardened, the design must be traced or pounced upon it. The outline and those lines separating the different parts of the design, and all other parts that are to retain the natural color of the wood, are then carefully painted in with Brunswick black or Canada balsam, laying on the black with a good body. This should remain until it gets thoroughly hard, which will be in about six or seven hours. The surface is then washed with a sponge and luke-warm water until all the size is removed from the exposed parts, the pattern drawn in the Brunswick black, which is impervious to water, remaining intact, and serving to prevent the stains running together when being applied. This washing must thoroughly remove all the size preparation, and after the wood has been allowed to dry it will be ready for the application of the colored stains. If the painting has been properly done, the design will appear as a clear black outline inclosing the white spaces, which are to be filled in with various colors, after which the black outline is to be removed, as will be explained. The black lines should be fully a sixteenth of an inch wide, and wider if required. Having decided upon the woods to be imitated, and the colors to be used, the stains, which may be either spirit stains or water stains, or both, may be laid in. The lightest stains must be put in first, and need not be confined to the exact outline of that particular part, but it is well that they should be. The stain may be freely used, and laid as level as it will allow, but a little shadiness is not at all objectionable. The next darkest stain must now be proceeded with, and so on for as many stains as are desired. When all are dry and hard the black outline may be washed clean off the wood with a brush and turpentine, which may be freely used until the whole of the Brunswick black is removed. The various colored stains will then appear enclosed in a white outline, which, if properly done, will be sharp and clean, and clear as an inlay of the real woods. What grain the whitewood has will be more or less seen through the stains, as they may be light or dark.—*Northwestern Lumberman.*

A WALNUT STEAL.

A good-sized timber steal, as the appearances show, has come to light in the Indian Territory, in a section richly timbered with walnut, upon which extensive operations have been prosecuted this season. During the past two weeks an immense amount of logs have been gotten out in various localities in Cherokee Nation, and 2,000,000 feet of the finest walnut was seized by Chief D. W. Bushyhead, on the ground that the operators had violated the laws concerning timber on Indian lands. The timber had already been sold, readily commanding $30 per thousand. The Cherokee Nation is described as being thickly timbered in sections with the choicest walnut, the best growing on the banks of streams and upon large areas of bottom land, where it thrives luxuriously. If these resources were properly developed, they would yield a large annual revenue.—*Northwestern Lumberman.*

A LOCAL paper states that a large mill will soon be built by Chicago capitalists in the Houghton Lake, Upper Peninsula, Mich., district, for the sawing of hemlock lumber.

THE tornado that lately visited the Saginaw Valley, Mich., and other localities in that state, cut a swath through Gladwin county, destroying considerable valuable timber.

THE Ottawa *Herald* says boats having heavy tows upwards have adopted a new course during the high water when passing Kettle Island, by hugging the north shore of which a strong current is avoided in the South Channel. That on the north side has so far changed its direction that many boats take this in preference to the other, and some idea of the rise in the river may be had from the fact that in this north channel the water is so low during the dry season that children frequently wade across barefooted. Last summer the water was exceptionally low.

THE *Timber Trades Journal* says :—Oak timber has not improved in value. The best quality wood in Hertz, Surrey, and Hereford realized only 2s. 6d. to 3s., and in Suffolk 1st quality, for shipment to London, but 2s. 3d. In most parts of Scotland and Ireland prices are given at much lower figures. English oak suffers more than any other home grown wood from foreign competition, and this competition increases rather than otherwise. We have now oak scantling for waggon work and other purposes imported direct from the Austrian forests, and manufactured wheelwright stuff, such as spokes, felloes, &c., is sent us from the United States and Canada in large quantities.

During May, nine vessels took cargoes of Puget Sound, W. T., lumber to foreign ports, which amounted in the aggregate to 7,000,000 feet.

The two scows of Leathem & Smith, at Sturgeon Bay, Wis., have been chartered to carry lumber from Oconto pier to Chicago at $2 per thousand. The capacity of the scows is 600,000 feet.

It is estimated that 3,000,000 feet of lumber will be shipped over the Green Bay & Minnesota railroad this season. The company has arranged to extend its transportation facilities by establishing a barge line to convey the freights from Eastmoor, opposite Winona, Minn., to the markets down the river.

The Lindsay *Warder* says an immense amount of lumber is being shipped by Mr. M. M. Boyd, of Bobcaygeon, to Albany, N. Y. The lumber is brought to Lindsay on scows, and then transferred to the Midland railway cars for shipment. This gives employment to a large number of men in this town.

Several hundred men and over one hundred teams are engaged in cutting and hauling timber at the present time on the Ocklockonee and Sopchoppy rivers, in Wakulla county, Fla., the logging business having received quite a stimulus. The logs are rafted to Carabella and Apalachicola, and sold at $5 to $6 per thousand feet.

The Reason he wrote it.

"I write this," says Mr. Nelson de Pew, of Napiersville, Quebec, Canada, "to say that, after suffering six years with rheumatism—accompanied with the most intense pain with which any one could be afflicted—I have been completely cured by the use of St. Jacobs Oil. I thus write because I consider it my duty so to do, and because I wish to publish to suffering humanity the wonderful efficacy of the Great German Remedy. When I remember that during the six years in which I was bedridden with this awful disease, I tried all kinds of remedies, and expended a very large amount of money with doctors of all schools, and underwent all kinds of treatment, the feeling of gratitude at my marvelous recovery impresses me to give the widest publicity to my case.

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NOTICE TO CONTRACTORS.

THE LETTING of the works for the FENELON FALLS, BUCKHORN and BURLEIGH CANALS advertised to take place on the fifth of July next, is unavoidably postponed to the following dates:—

Tenders will be received until WEDNESDAY, THE SECOND DAY OF AUGUST NEXT.

Plans, specifications, &c., will be ready for examination (at the places previously mentioned) on SATURDAY, THE FIFTEENTH DAY OF JULY NEXT.

By order,

A. P. BRADLEY,
Secretary.

Dept. of Railways and Canals,
Ottawa, 20th June, 1882. d150-1aw-2L13

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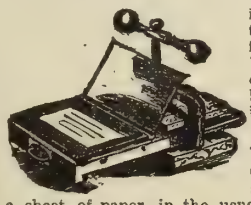

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Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

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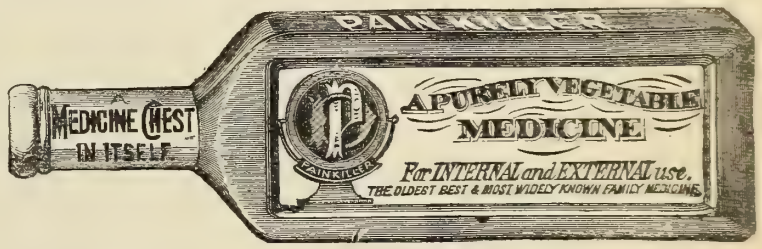
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THE OLDEST BEST & MOST WIDELY KNOWN FAMILY MEDICINE

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Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

Cobourg, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &c., J. E. KENNEDY

Beware of Counterfeits and Imitations.

Price 20c., 25c., and 50c. per bottle.

REDWOOD IN CALIFORNIA.

A correspondent of a Chicago paper in describing the California redwood timber standing on the western slope of the coast range, and some of which grow to enormous proportions, says :—

A careful estimate of standing redwood places the amount at about 26,000,000,000 feet, certainly not a large supply when it is considered that the present yearly consumption is not far from 200,000,000 feet, and the demand each year is increasing.

The size of the redwood tree varies greatly with the locality. In the southern portion of the timber belt, where the rains and logs are lighter, the timber will not average more than two or three feet in diameter, and the lumber manufactured is generally hard and flinty, but further north the trees increase in size. The character of the wood changes, until in Humboldt county is found probably the finest belt of timber in the world; trees 12 to 18 feet in diameter, and from 150 to 250 feet high being no rare occurrence. In this section there are large tracts that have been estimated to have 250,000 feet to the acre, and single acres could be selected that would double or treble that amount, and the lumber is of the finest and softest quality, equal to the best eastern white pine. I speak of these large trees, but would not give the idea that that is the prevailing size. While such trees are not rare, the average size of saw logs is from six to eight feet in diameter, and most of the mills on Humboldt Bay are being built with reference to handling logs of that size. Throughout the redwood belt there is little other timber. Seme pine, fir and spruce is cut, but no great amount of either.

As but few of your readers are familiar with redwood lumber it may not be out of place to give here some of its characteristics and qualities that make it one of the most valuable of the forest productions. As the name indicates, it is of a dark reddish color. It is soft, coarse grained, and very brittle. The grain usually runs very straight, and it splits readily, it being no difficult matter to split out a board one inch thick, 8 to 10 inches wide, and ten to fifteen feet long. When dry it is much lighter than pine, spruce or fir, but of the logs cut from a newly fallen tree, the butt log thrown into water will often go to the bottom like a stone, while the the top logs will float like cork. It is of slow growth. Of the timber now being cut, the circles indicate that many of the trees have been standing thousands of years. The bark of the tree is very thick, soft and fibrous in character, and contains no resin of pitch, hence fires that frequently run through the underbrush of redwood forests have no effect on the standing timber.

Perhaps I can better illustrate some of the peculiar qualities of redwood by mentioning some of the uses for which it is peculiarly adapted. Its durability above and under ground causes it to be well adapted for railroad ties and posts. These were formerly split, and that readily, to any dimensions required, but on account of the waste of timber, sawed ties are now coming more into use. Shingles and shakes for roof covering are all made from redwood. When a man has covered his house with redwood shingles he considers that matter settled for life. For railroad ties and fence posts there was consumed in the year 1881 not far from 60,000,000 feet, and for shingles and shakes about 13,000,000 feet, board measure.

For tannery tanks it is peculiarly adapted, as the wood resists the action of the tanning solution. A tannery in this city has been using the same tanks for 10 years, and they are apparently as good as ever they were. Our wine merchants now use redwood vats entirely, because a certain insect found in the new juice of the grape, which destroys the pine vats by boring through them, dislikes the taste of redwood, and lets it alone. As redwood much resembles Spanish cedar in color, and imparts no odor to effect the taste of tobacco, it is now being shipped quite extensively to New York to be used in the manufacture of cigar boxes.

But the principal use to which redwood lumber is put on this coast is the outside and inside finish of houses, as from 40 to 50 per cent of the lumber sawed is perfectly clear, without knot or blemish, and much of this can be cut into planks six inches and under thick, and from 24 to 60 inches wide. It is well adapted for brackets, ornaments and mouldings of all kinds. While much of the grain runs straight, curley redwood can be selected, which when polished and varnished, rivals rosewood in its beauty.

To the extensive use of redwood in our buildings is due, in a large measure, our immunity from large fires in San Francisco and neighboring cities. There being little or no resin in the wood, a fire is easily put out, and when once extinguished it is with difficulty ignited again.

SASH, DOORS AND BLINDS.

The Chicago *Northwestern Lumberman* says: A little more weakness characterizes the sash, door and blind market, and a decrease is manifest in the volume of trade. This condition of affairs is mainly due to the same agencies which have tended to stagnate general commerce—uncertainty about crops, strikes all over the country, the high price of provisions and commodities, and other potent causes being at the bottom of dull trade everywhere; while the strike among brickmakers has directly affected the building industry, and curtailed the sales of sash, doors and blinds as well as lumber. Not only is there less building, and hence less demand in the city, but the building boom through the country has lost much of its vim, and in this business as in all others, the dealers are waiting for fair or abundant crops to restore the vigour of trade, and they are sure that a revival must result in proper season, which they deem will be a spirited one. These conditions of the market and a slight bear movement brought about something of a change in discounts to the benefit of the purchaser, as has been recorded, but everything in connection with the trade bespeaks a stability in prices from this on. There is a firmness in the upper grades of lumber which go into sash, doors and blinds, while dry lumber of the proper quality is scarce. A combination of the glass factory owners has agreed to go out of blast for 90 days, and the aggregate stocks on hand with the glass manufacturers is stated to be 250,000 boxes short of the supply last year. Scarcity and firmness in the prices of materials used brings expense to the manufacturer, and naturally tends to stiffen values. Nothing but a weakness in demand could result in reducing prices, even slightly, under such circumstances, and it would not require a very great revival in business to give them an upward impetus.

Lumber Libel.

At Milwaukee, Wis., on June 13, Oliver Oberg *et al*, owner of the schooner Burt Barnes, filed a libel against a cargo of lumber and wood delivered the latter part of May on the docks of the Northwestern Sleigh Company, at Milwaukee. It is claimed by the owners of the Barnes that a charter was secured by the Barnes from the owners of the sleigh company to carry a full cargo of hardwood lumber from Pine Lake to Milwaukee at $2.50 per thousand. On the arrival of the vessel at Pine Lake the cargo was not ready, and she loaded but 130,022 feet of it, and took on four and one-half cords of wood, both of which she delivered on the company's dock. A freight of $325 on the lumber, and $13.50 on the wood was demanded, but the company would only pay $300. The amount of the libel is $51, of which $25 is for the lumber cargo, $13.50 for tho wood, and $12.50 for demurrage. —*Northwestern Lumberman.*

To Prevent Wood Cracking.

The Boston *Journal of Commerce* says a process to prevent wood from cracking is to place the wood in a bath of fused paraffin heated to 212° Fah., and allow it to remain as long as bubbles of air are given off. Then allow the paraffin to cool down to its point of congelation, remove the wood, and wipe off the adhering wax. Wood treated in this way is not likely to crack.

Box making is one of the leading industries of East Boston, where a larger number are daily produced than at any other place in the state. The four manufacturers in this line cut up 100,000 feet of lumber each day into all kinds of box material, using pine and spruce almost entirely.

THE CORK OAK.

In the "cork tree," that species of oak whose elastic bark is of so much practical value in the manufacture of the familiar stoppers to the millions of bottles and jars in which it is becoming more and more the custom to preserve all kinds of eatibles and drinkables, many of our colonies might find a profitable object of agriculture. The cork harvest in Spain, which, with France, Portugal and Italy, is the principal source from whence we derive our supplies, is becoming every year more scanty, owing to the greed of growers. who have injured the stock of trees by stripping them of their bark too frequently. The tree which produces the most valuable cork does not come to maturity for a quarter of a century,and can only be barked to advantage every eight or ten years : but the temptation to make rapid profits has been too great to withstand, and the result has been the injury and ruin of many plantations. Some of the quick-growing varieties produce an inferior, porous kind of corks, but the best are the slowest of growth. England alone imports some 10,000 tons of cork per annum, and the quantity is yearly increasing, notwithstanding the introduction of many substitutes for cork, such as plugs of wood, whose fibres have been specially softened for the purpose, indiarubber and other contrivances. The French Government, seeing the desirability of securing as large a share of this trade as possible, have for several years past given special encouragement to the formation of plantations of the cork-oak in Algéria, and the same thing will, no doubt, be done in Tunis; but the tree will grow equally well in India, Central America, the West Indies, many parts of Africa and Australia and in the South Sea Islands, the planters in our possessions there might lay the foundation of a profitable industry by introducing some of these trees and starting their systematic cultivation. The tree besides being a most valuable one and easily cultivated, is of magnificent growth, and would form an ornament in any landscape.—*Colonies and India.*

FOREST FIRES.

The *Northwestern Lumberman*, of June 17th, says :—"Wisconsin has been visited, during the past few days, with forest fires which have destroyed large tracts of timber, and caused a large amount of damage and loss. One of the fires has swept the southwest part of Clark county, and another ravaged property through the central section of Marinette county. Reports of the ruin wrought have been coming in for several days, and in the early stages of the calamity it was feared that many towns would be incompassed by the flames. The efforts of hundreds of men in Clark county in fighting the fire were of little avail, and it swept onward, destroying millions of feet of timber. In that county, Renwick, Shaw & Crossett, of Davenport, Iowa; Cable, Gile & Holway, of La Crosse; Coburn of Maine, and Washburn, of Esta, are among the many losers on standing pine. A despatch from Neillsville, June, 12, announced spread of the fire, and the burning of the entire logging camp of F. D. Lindsay, of that place, the timber and logs being destroyed, and at that time the village of Hewettsville, with Hewett's mill and yards, were threatened with destruction. The loss on camp and log fixtures at Lindsay's was $1,000; but the full loss is not stated. One man barely escaped with his life by mounting a draught-horse and fleeing before the flames. The fire sped rapidly onward, bidding fair to sweep everything clear to the Eau Claire river. Paulus' camp was only saved by heroic efforts, though one man was severely burned, as well as several head of cattle. The last reports from this section was decidedly cheering, a heavy rain having extinguished the fires in the main, and averted further danger. The number of million feet of pine burned cannot yet be ascertained. The Martinette county fires, about the Pike river region, have done much damage, and at last advices were still raging, only partial estimates of the loss being possible. It has been ascertained that at least 30,000,000 feet of standing pine has been ruined, and when the whole loss is known it must reach into the hundreds of thousands. The fire reaches into the peninsula of Michigan. A late despatch also modifies the statements of damage in Clark county, stating that it was much lighter than the frenzied fears of the people had made it appear. The most of the fire is located about Wedges creek, and a portion of the east fork, and largely in a section previously cut over. Lindsay's was the only camp burned.

HOUSES BUILT FOR ALL TIME.

The houses that are built now in Paris are not such as the coming generation will find "stuffy," "too small," "old-fashioned" and so on, criticisms which with us are commonly passed on the creation of the last twenty-five years; they are houses intended to last practically for all time. Built of solid stone and iron throughout, with foundations that resemble Roman work, on the traditions of which, by the way, they are built by the sturdy Southern workmen. Commercially, also, these investments prove successful, and household property, so far from being a drug in the maket, is at a premium. By the judicious division into "flats," not only is every inch of space utilized—the amount of rent for unoccupied room in England it would be curious to calculate—but all pockets are accommodated, from the prince who occupies the first floor above the thrifty *concierge* on the *rez-de-chausse*—whose charge it is to open the door at night and keep, not only his or her own neat *loge* bright and clean, but the *porte-cochere* and the yard, with its pretty green plants and bright brass water-cock—through the intermediate *etages* to the fifth or *cinquieme*, with its healthy balcony, where the large family of the modest lodger can enjoy the air and view as a compensation for the sensible distence from earth. But all own in common, from the prince to the fifth floor employee, bank clerk or civil servant, the *porte-cochere*; through which rolls from the compact stables and coach house in the yard at the back the carriages of the "first floor"—and for all alike the entrances are kept clean, the lamps bright, the oak stair case well waxed; each in his respective and well-proportioned degree making up the very comfortable rental which *Monsieur le proprietaire*, though his agent, the *concierge*, receive quarterly from his tenants.—*London Builder.*

A Cottonwood logging camp is running across the river at Carson's, near Tacoma, W. T., and the logs are floated from there to Seattle. One boom of logs has already been taken down. By the new process the logs are cut the right length for barrels, dried, shaved into sheets, and the barrel, except heads, are of one piece. This process has been successfully adopted for some time with elm and other tough wood; but it is yet a question whether cottonwood and timber of like nature can be worked to advantage on this plan.

The firm of Davison & Co., of Bear Lake, who have been for some time past building a circular saw mill for the manufacture of hardwood lumber, have so far completed the same that they are about ready to commence operation. The mill cost about $7,000, will have a capacity of 30,000 feet per day, and receives its supply of logs over the Bear Lake & Eastern railway, which was recently constructed by the Hopkins Manufacturing company. The supply of logs in the country around Bear Lake is very abundant, and the market for hardwood lumber is never fully supplied, and prices are constantly advancing. This is the second mill erected at Bear Lake for the manufacture of hardwood lumber, the profitableness of the industry having previously been demonstrated by Charles Buntin, and the future outlook of the place is decidedly bright.

$200.00 Reward!

Will be paid for the detection and conviction of any person selling or dealing in any bogus, counterfeit or imitation Hop Bitters, especially Bitters or preparations with the word Hop or Hops in their name or connected therewith, that is entended to mislead and cheat the public, or for any preparation put in any form, pretending to be the same as Hop Bitters. The genuine have a cluster of Green Hops (notice this) printed on the white label, and are the purest and best medicine on earth, for Kidney, Liver and Nervous Diseases. Beware of all others, and of all pretended formulas or recipes of Hop Bitterf published in papers or for sales as they are frauds and swindles. Whoever deals in any but the genuine will be prosecuted. Hop Bitters Mfg. Co., Rochester, N. Y.

Chips.

A LARGE number of vessels on Lake Michigan lost their dock loads of lumber in the gale of June 3.

THE lumber dealers of Fargo find it difficult to supply the demand, so great is the amount of building going on.

SLABS and edgings are being shipped from Wausau, Wis., to the Appleton pulp mills. A pulp mill at Wausau would save the distance to the slabs and edgings.

In Germany sawdust is combined with glue, or other intensely adhesive material, to form a plastic mass, from which are wrought door-knobs, piano-keys, and a variety of objects.

The schooner *Roekaway* lately made the round trip between Chicago and Muskegon in 35 hours, loading and returning with 216,000 feet of lumber. Her master thinks that he is entitled to the biscuit.

A NEW Congregational church at Quadrant, Highbury, England, has its interior timber-work entirely of pitch pine, the outside left with saw-cut face, without varnish, and covered with Stockholm tar.

STEAMERS have been chartered for the conveyance of the 14,000,000 feet of spruce deals which have been sold for the English market. This is a new step in the trans-Atlantic lumber trade. Formerly sailing vessels were employed.

LAST fall a raft of logs belonging to A. M. Otis was lost by the tug *Leviathian* in Sturgeon Bay river, Wis., and about half of them have been picked up by Spear's crew and placed in his boom. The tug owner received $950 for his services.

A TRACT of pine land in Presque Isle county, Mich., which was offered for sale two years ago for $19,000, is now in the market at $70,000 cash. Of this land 1,600 acres are in the township of Metz, and 2,800 in Belknap. The land is offered at the rate of between $15 and $16 an acre.

THE Decatur Lumber Company, Decatur, Ind., has a sash, blind and door factory attached to its establishment, 40×80 feet in area, and two stories high, with an engine room in the rear 20×36 feet in size. It is supplied by machinery of the latest improvement, and cost $14,000.

THE establishment of mills for turning out hardwood lumber is being advocated for the neck 'o woods about Manistique, Mich. There is any quantity of maple, birch and other hardwood throughout that section that ought to be converted into lumber, whereas it is burned in heaps.

IN the vicinity of Quincy, Plumas county, Cal., a section of an oak tree was discovered the other day, five or six inches in thickness, which had a deer's horn running directly through it, the wood having grown around and neatly incased the queer relic. It was about 12 feet high in the tree.

JAMES TRAVIS, of Greenville, Ala., is erecting a saw mill two miles below Georgiana, and will utilize the timber blown down by the recent cyclone, which levelled thousands of fine trees in a magnificent pine forest. There is sufficient timber on the ground to keep the mill running for several years.

IT is proposed to dam the lakes at the headwaters of the Cloquet river, Minn., in order to store the water for the purpose of helping logs over tough places in the St. Louis below the mouth of the Cloquet. It will take a high and tight dam to hold water enough to smooth down the wrinkles in the St. Louis.

THE new door and blind factory owned by O. G. Howes, at Tonawanda, N.Y., is 65×100 feet in area. Two sets of machinery are run its entire length, one side being for doors and the other for blinds. The mill has a capacity of 100 doors a day, and 40 pairs of blinds. The dry kiln will hold 2,000 doors.

THERE was hauled at Blackman Brothers' camp, near Suohomish City, W.T., recently, a fine fir log which contained over 5,000 feet of lumber. It was a butt log 24 feet long, and scaled 70 inches at the small end. At eight feet from the ground the stump from which the log was cut measured eight feet in diameter.

DURING the past six months over 40 buildings were constructed at Niagara Falls, N.Y., mainly dwellings, costing $1,000 and upwards. A wood-pulp mill, 50×100 feet, four stories high, and having a capacity of eight tons of pulp every 24 hours, is among the improvements.

THE authorities of the village of Fort Edwards, N. Y., propose to take measures to stop the deposit of sawdust by the mill owners there in the east branch of the Hudson river. If the suits which they intend to bring fail to produce the desired result, they will appeal to the Governor, it is stated.

THE Tacoma mill on Puget Sound, in Wash ington Territory, outdid itself a few days since. During 11 hours and 30 minutes 170,750 feet of merchantable lumber was cut, which was the biggest day's work ever done at the mill. The capacity at this mill is being constantly increased, and it is expected that it will shortly turn out on an average 200,000 feet of lumber per day.

RECENTLY 90 pieces of the largest hewed timber ever transported over the Louisville & Nashville road were brought to Pensacola, Fla. The sticks averaged 65 feet in length, while some of them reached more than the length of two cars. The wood was kept near Upton, Fla., and belonged to D. F. Sullivan, the cargo being considered the most valuable ever brought to Pensacola.

THE log lifting and carrying device of Wm. Baptist & Sons, of Green Bay, Wis., for loading and unloading scows, has proved a reasonable success. The apparatus grips the logs on the shore and hoists them upon the scow at the rate of one a minute. The only defect of the appliance is that the clamp does not unclasp readily in dropping the log, but this can be easily remedied.

A GENTLEMAN in Teeterville writes to the *Sentinel* asking if there is not a good opening for a lumber yard and saw mills in Thunder Bay, as in looking over the columns of the *Sentinel* he does not see that anyone advertises lumber for sale. To which the *Sentinel* would reply that there is quite a demand for lumber, and no one in Prince Arthur's Landing dealing in it.

A NARROW-GAUGE logging railroad has been located by J. C. Abbott, civil engineer, for Colonel Stewart Ives, at Hungerford, Newaygo county, Mich. The main track is three miles long, and running northerly, traverses Mr. Ives pine section, while there are several branches east and west of the track. Six cars and an engine now haul 12,000 to 15,000 feet at a load, making 15 trips daily.

THE piers along the lake shore, where they occur in Wisconsin and Michigan, are pronounced a great blessing to agricultural and timber interests, and in consequence of the facilities they afford, farmers are enabled to sell the timber cleared away from their lands, which would be otherwise consigned to the fire heap, and the returns realized from such disposal are ample to meet the expense of clearing lands.

R. H. WEIDMAN & Co., are building another dam one mile west of the one already built by them on the West Branch, Mich. The new dam is for the purpose of floating 1,500,000 feet of coarse logs that are banked on the stream, and running them down the West Branch. The company has about 10,000,000 feet of coarse pine standing near the upper dam, all of which it intends running to its mill pond here to be sawed.

THERE are in Maine about a dozen thread-spool manufactories. The Belgrade mills of D. & H. W. Golder, give employment to 35 operatives, and annually turn out about 235,000 gross of spools. When this firm began operations, 27 years ago, there were but ten spool factories in the country, while now there are some 300. The establishment does a business of $35,000 a year, and annually consumes 1,500 cords of white birch timber.

THERE was an immense log jam at Grandfather Bull Falls, on the Wisconsin river, which was such a wonderful combination that it was truly an extraordinary sight. It was of such interest that it was to be photographed. The logs were piled up 30 feet high at the head of the jam, the barrier extending back four miles, and the jam was of an immense height the entire distance, the logs working themselves into many remarkable shapes.

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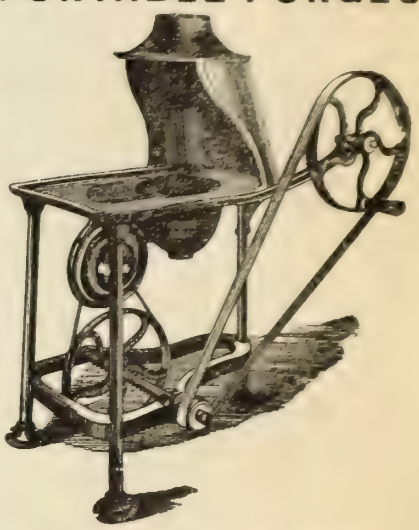

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Market Reports.

TORONTO.

From our own Correspondent.

JUNE 21st.—Lumber sales and shipments continue extremely dull. Some of the largest lumber crafts trading from this port to Oswego are now tied up to the docks for want of cargoes. I think I have never noticed lumber matters in the dullest times any quieter than at the present time, and even if the new cut was ready to come forward, the demand for the local market, at least, is almost nil, and dealers are inclined to cut prices somewhat in order to obtain bills; and should the same quantity of the coarser grades of lumber be placed on this market this season as that brought here last year, prices will undoubtedly tumble. There is no work in progress at present that could possibly absorb one-third of the quantity used here during the summer of 1881. Two of our retail dealers have closed their yards, and one wholesale house is presumed to have gone where the woodbine twineth. All this tends to prove that the local trade is not in a good shape yet; the fact is, there is more dwellings waiting occupation than there are tenants to fill them. Speculative building has been overdone, and a large proportion of the houses erected during the past two years are no credit to our city, and it is well that such buildings are no longer appreciated. Prices at the various yards remain at previous quotations, with a slight tendency, as before stated, to accept lower rates for good orders.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M	2 50@3 00
XX sawn shingles	2 00
Sawn Lath	2 25

MONTREAL.

From our own Correspondent.

JUNE 23rd.—In the lumber market, as well as in all other branches of trade, the elections have caused a lack of demand both for building and other purposes, and the high prices ruling keep parties buying from hand to mouth, and cause things generally to hang fire. New buildings which were expected to be put up this summer are not so numerous as was looked for. Stocks are ample for all demands, and although prices are not materially changed, the tendency is upward. We quote ex yard as under:

Pine, 1st quality, ₱ M	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M	14 00@15 00
Pine, 4th quality deals, ₱ M	11 00@12 00
Pine, mill culls, ₱ M	8 00@10 00
Spruce, ₱ M	10 00@11 00
Hemlock, ₱ M	9 00@11 00
Ash, run of long culls out, ₱ M	17 00@20 00
Bass, " " ₱ M	17 00@20 00
Oak, ₱ M	35 00@45 00
Birch, ₱ M	18 00@20 00
Hard Maple, ₱ M	18 00@25 00
Lath, ₱ M	1 30@ 1 40
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

SHIPMENTS.

The barque *Cupid*, the first vessel loading here for the River Plate, will be finished to-night, and will in all likelihood clear to-morrow. The shipments since the 9th inst. to date were:—To Liverpool, 10,687 pcs. deals; to London, 10,000 ft. lumber; to Glasgow, 20,000 ft. lumber and 5,144 pcs. deals; to Bristol, 10,000 ft. lumber and 19,522 pcs. deals, also 268 deal ends; to Barrow, 28,243 pcs. deals and 754 ends; to Hartlepool, 20,000 ft. lumber; to St. John, Nfld., 73,227 ft. lumber and 3 mille staves.

FREIGHTS.

We have heard of no engagements for lumber since the date of our last report. So far there have been about 20 vessels chartered to carry lumber to South America, many of which are in port, but not ready yet to take in cargo. Rates are steady at $14@$15.

LIVERPOOL MARKET.

Latest advices from Liverpool State that stocks are now light except of pitch pine and flooring boards, and arrivals from Quebec have been limited to pine deals by steamer. Prices are as follows:—Quebec square white pine, 1s. 7d.@2s. 5d. per ft.; Quebec waney board pine, 2s. 3d.@2s. 8d. per ft.; Quebec red pine, 1s. 4d. @1s. 9d. per ft. Deals—1st quality Quebec pine, £19@£20 1s. per standard; do. 2nd quality £13 10s.@£14 10s.; do. 3rd quality, £9 10s.@ £10 15s.

CORDWOOD.

Demand is poor and confined to what is wanted for immediate consumption. Dealers are not yet laying in stocks, but are waiting to see how low prices will go. The Court House has advertised for tenders for a large quantity which were to be given in to-day, but so far no tenders have been asked for by the Corporation for the large quantity which they require. Prices remain steady on the wharf and at the railway station, as under:—

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	5 50
Short "	5 00
Tamarack	4 50@5 00

LONDON, ONT.

From our own Correspondent.

JUNE 24th.—At no season of the lumbering interests in this city has business been quieter, and it can only be accounted for by perhaps the elections or the attention necessary for agricultural pursuits at this time, or a combination of both.

London, I may say, has been totally void of business in any branch for the past ten days, owing to the elections excitement, and now that the Hon. John Carling has made good his position as Postmaster-General in a fair and square encounter, we shall settle down again to our regular routine of commerce.

QUOTATIONS.

Mill cull boards and scantling	$12 00
Shipping cull boards, promiscuous widths	13 00
" " 10 and 12 in. stocks	13 50
Common boards, promiscuous widths	15 00
Scantling and joist, up to 16 ft	16 00
" " " 18 ft	16 50
" " " 20 ft	17 50
" " " 22 ft	18 50
" " " 24 ft	20 00
Common stocks	16 00
Common 2 in. plank	15 00
Cutting up plank and boards	20 00
Sound dressing stocks	19 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	22 00
¾ " " " "	22 00
1 " " " "	22 00
XXX sawn shingles, ₱ M	3 25
Lath per 1000 feet	5 00

OTTAWA.

From our own Correspondent.

JUNE 26th.—In the lumbering industry, as in all others, there is a certain time, when everything being in an active state of progress, going along smoothly, nothing very unusual transpires, and that period is the present, around this locality, at least.

The saw mills are making as much of the time as it is possible, working night and day. No sales of the season's cuts have been reported, although it is surmised that some have occurred. Such transactions are invariably kept a secret.

In square timber local dealers say the Quebec market is unusually dull just now, being rather overcrowded, and sales are not so numerous as was anticipated. This is considered strange by dealers, as it is well known that there is less stock on the English market than usual. Mr. Dobell, who had the contract for supplying the Imperial Government, has now four million feet on hand. This affects the market considerably.

SERIOUS BREAK.

The improvements recently completed on Gordon Creek, on the Upper Ottawa, and which were a great benefit to lumbermen, have been to a great extent destroyed. The sheeting of the dam is very thin, while the river rushes past with great velocity, so that logs and square timber rush right through the sheeting. The damage is estimated at about $30,000.

ALBANY.

Quotations at the yards are as follows:—

Pine, clear, ₱ M	$55 00@65 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in	00 26@00 32
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M	40 00@43 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@85 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	25 00@30 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 75
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ₱ M	0 00@ 1 75
Lath, spruce, "	0 00@ 2 00
Lath, pine, "	0 00@ 2 25

BOSTON.

JUNE 24.—The *Journal of Commerce* says the general market is quiet, and keeps along with a moderate demand such as has been noted for weeks past. There is considerable new work being undertaken all the time, although not up to expectations nor hardly sufficient to make values very firm. The western trade centres show an easier tendency to prices. Southern pine is giving way a little, with light calls. Hardwoods are pretty well sustained.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

BUFFALO.

We quote cargo lots:—

Uppers	$46 00@49 00
Common	18 00@20 00
Culls	13 00@14 00

CHICAGO.

JUNE 24th.—The *Northwestern Lumberman* says the past week has been one of large receipts at this port, aggregating 65,778,000 feet of lumber and 38,227,000 shingles, while yet the receipts of the corresponding week of last year were nearly 3,000,000 feet of lumber more and 3,000,000 shingles less. The total receipts from all sources now aggregate 656,801,000 feet of lumber and 313,285,000 shingles, as compared with 519,145,000 feet of lumber and 228,550,000 shingles to the corresponding date in 1881, an excess for the current season of 137,656,000 feet of lumber and 84,735,000 shingles. The market has been fairly supplied with lumber at nearly all times since the date of our last report, the three closing days of last week being comparatively light. The vessels have got around so during this season that it has come to be looked for with certainty that each recurring Monday morning will bring a large fleet to the market, and Monday of this week was no exception, a count revealing the presence of no less than 43 cargoes of lumber and shingles. During the day these were increased by quite a number, the close of the day finding 19 vessels still awaiting purchasers of their cargoes. Tuesday gave a fleet of 22 vessels, and Wednesday 12, which was on Thursday morning reduced to 9, of which all but one cargo of lumber and two cargoes of shingles had been cleared away by Thursday noon. With these large offerings it was thought by nearly everyone that prices must yield, but such did not prove to be the case, concessions from former prices being granted only under the considerations of quality or undesirableness of the offered stock. While the quotations of piece stuff must therefore remain at the former figures of $11@11.50; one or two cargoes sold at $10.75, but these were by common consent adjudged well sold, when their character was considered, one buyer remarking that at $10.75 for one of these cargoes he should consider average piece stuff good for $11.50.

CARGO QUOTATIONS.

Short dimension, green	$11 00@11 50
Dry	11 25@11 75
Long dimension	12 00@14 00
Boards and strips, No. 2 stock	12 00@16 00
No. 1 stock	17 00@22 00
No. 1 log run, culls out	17 00@21 00
Standard shingles	2 55@ 2 65
"A"	2 60@ 2 90
Clear	3 15
Lath	2 30@ 2 35

Receipts and shipments of lumber and shingles for the week ending June 22, as reported by the Lumberman's Exchange:—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	65,778,000	38,227,000	49,655,000	23,725,000
1881	68,174,000	35,380,000	50,545,000	24,405,000

Receipts and shipments of lumber and shingles from January 1, to and including June 22nd:—

	RECEIPTS.		SHIPMENTS.	
	Lumber.	*Shingles.*	*Lumber.*	*Shingles.*
1882	656,801,000	313,285,000	854,285,000	430,410,000
1881	519,145,000	228,550,000	655,748,000	268,659,000
Inc.	137,656,000	84,735,000	198,537,000	161,751,000

LAKE RECEIPTS TO JUNE 22.

1882	534,849,000 289,441,000
1881	410,621,000 173,172,000
Increase	124,228,000 116,269,000

STOCK ON HAND MAY 1.

	1882.	1881.	1880.
Lumber	372,711,591	270,317,046	292,467,873
Shingles	167,598,300	91,607,700	130,315,000
Lath	21,902,726	20,658,679	31,195,311
Pickets	1,093,328	2,193,415	836,021
Cedar posts	238,823	77,042	80,708

OSWEGO, N.Y.

We advance quotations on shingles and lath, the supply of both being short in the market. The stock of lumber is about the usual amount carried here. Prices are not quite so firm as last month, but demand continues good and the stock of last year's cut is likely to be worked off by the time new lumber is for market.

Three uppers	$42 00@46 00
Pickings	32 00@36 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	11 00@14 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@40 00
1¼ inch	34 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1¼ inch mill run	14 00@20 00
" " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 25@ 4 50
XXX, 18 inch, cedar	3 50@ 3 60
Lath	1 80@ 2 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@49 00
Common	20 00@22 00
Culls	14 00@15 00

LONDON.

The *Timber Trades Journal*, of June 10, says: The state of inactivity presented by the dock deliveries published with this number may be partly attributed to its having been holiday week, but there must have been other depressing influences operating to have caused such a marked difference between the quantity of stuff that left the dock the previous week and that of the one to which we refer. At the docks we may take it that holidays are not observed with the same exactitude that they are in other mercantile establishments, from the fact of the traffic in shipping necessitating constant labor of one kind and another; thus we hardly look to see on a public holiday the almost total cessation of work there that we count upon in other important concerns.

It is remarkable how the deliveries at the docks sympathize with the proceedings at the "Baltic," and when large sales are frequent there is a corresponding activity Deptford way, while to the large unreserved sales held during the spring of 1881 are due the heavy deliveries from the docks at that time, which we have yet to make up by some 7,000 standards or so to bring the consumption up to the present time on a par with that of the year before.

Amongst the arrivals into London this week we may notice the New York liner *Egyptian Monarch*, which brings her usual assortment of

ready-made joinery, supplemented with walnut, mahogany, &c., and seems to have been entirely wood laden this trip, and represents the only American arrival in the week's list. The week's interval with nearly seventy vessels to record, and not a single cargo of spruce or pitch pine amongst them, and June too, is something unususual to witness. It is said freights are going begging at New York, and vessels out there are ready load up anything they can get, but we do not see any indications of it here yet.

LIVERPOOL.

The *Timber Trades Journal*, of June 10, says: The effect of the recent holidays being now over has shown itself by putting a few orders into the market, yet there is by no means an animated feeling. The continued importations of spruce, which are pressed upon the market as fast as the vessels arrive, have weakened the market, and this is likely to continue so long as the pressure to sell is maintained. A cargo just arrived by sailing vessel was offered for sale by auction on Thursday last, but there was an entire absence of buyers from the country, and the local dealers present did not seem anxious for the goods; in fact only one bid was made for the best dimensions in the cargo, and this was so low that the brokers, Messrs. Farnworth & Jardine, withdrew it, and it has since been sold on private terms to a house in the trade here at a price the lowest that has been done this import season.

The first imports from Quebec have arrived per steamers, and consist entirely of deals, upon timber merchants' account. The almost unprecedented severity of the weather in the St. Lawrence River will greatly retard the importation of log timber and shorten the season. Higher freights have been paid for sailing vessels than had been expected, and charters are said to have been effected at 26s. to 27s. 6d. for timber, and at 55s. to 57s. 6d. per standard for deals, by steamer.

BRISTOL.

Messrs. King Brothers, in their June circular, makes the following remarks:—Our trade during the past month has assumed a quiet character, the demand being easily satisfied. We do not however, look with any anxiety on the excess of this year's imports over those of last, as the timber imported for special railway contracts, outside the regular trade, accounts for this surplus. Quebec goods.—Yellow Pine Timber—Waney board pine is wanted; no inquiries for common. Red Pine—No transactions. Oak in slightly better request. Ash and Walnut—Stocks nominal; fresh wood will have a ready sale. Pine Deals—Very little business has been doing, and prices are unchanged. New Brunswick goods.—Spruce deals have not experienced a large demand, and prices placing a drag on the consumption. Stocks are, however, light. Pine Deals—No stocks. Birch—A fresh parcel of good St. John's wood has arrived, and has gone freely into consumption.

GLASGOW.

The *Timber Trades Journal*, of June 10, says: During the past week there has been no public sales of timber held by brokers at any of our Clyde ports, and some feeling of dullness in the market has been experienced. At this time of the year, when efforts are made to clear off old stocks of Canadian goods in prospect of new arrivals, it is a matter of more than ordinary difficulty for buyer and seller to come to terms, and for the purpose of closing accounts, goods may be parted with occasionally at prices which are not a fair criterion of market rates.

The season's importation of Quebec deals has already begun, several parcels having arrived lately per steam liners. An auction sale about to take place, in which some of these are included, will indicate the existing demand.

Although the stock of yellow pine timber is by no means heavy, sales are not easily effected; the market, therefore, will not suffer by the long outward passage of the Quebec fleet.

Imports for the week at Greenock and Glasgow comprise three cargoes of pitch pine, several large parcels of Cananian pine and spruce deals, and various lots of oak billets and planks.

BOARD OF TRADE RETURNS.

MONTH ENDED 31ST MAY, 1882.

	Quantity. Loads.	Value. £.
Timber (Hewn).		
Russia	34,442	74,675
Sweden and Norway	43,464	65,659
Germany	28,252	89,693
United States	23,031	76,887
British India	3,194	42,715
British North America	55	211
Other Countries	36,061	48,439
Total	168,499	398,280
Timber (Sawn or Split, Planed or Dressed).		
Russia	88,363	217,115
Sweden and Norway	134,271	332,159
British North America	34,721	77,921
Other Countries	41,082	135,687
Total	298,437	762,882
Staves, (all sizes)	9,305	49,988
Mahogany (tons)	3,413	31,513
Total of Hewn and Sawn	466,936	1,161,102

FIVE MONTHS ENDED 31ST MAY, 1882.

Timber (Hewn).		
Russia	53,115	118,284
Sweden and Norway	228,007	343,361
Germany	90,444	292,427
United States	71,978	242,795
British India	26,302	334,734
British North America	1,230	4,089
Other Countries	157,989	189,174
Total	629,065	1,524,864
Timber (Sawn or Split, Planed or Dressed).		
Russia	122,966	293,865
Sweden and Norway	411,205	1,133,921
British North America	86,424	206,138
Other Countries	130,052	418,095
Total	750,647	2,055,019
Staves (all sizes)	39,010	210,096
Mahogany (tons)	13,286	123,302
Total of Hewn and Sawn	1,359,712	3,579,883

TIMBER NEWS.

The Ottawa *Citizen*, of June 24th, says:—The following is a statement of the timber which passed through the undermentioned slides and works during the week ending 23rd June, 1882:

DES JOACHIMS SLIDE.
(Week ending 17th June.)

Rafts.	*Owners.*	*Cribs.*	*Pcs.*
1	Bell & Hickey	59	1,597
1	James B. Dickson	138	2,405
2		179	4,002

LEFT MADAWASKA SLIDE.
(June 21st.)

1 raft owned by Alex. Fraser, comprised of 59 cribs, containing 1,360 pieces of square timber.

LEFT OTTAWA SLIDES.
(Since 19th June.)

Rafts.	*Owners.*	*Cribs.*	*Pcs.*
1	David Moore	154	3,367
1	J. Francis & Co	147	4,630
1	Hilliard & Dickson	110	2,958
1	Wm. McKay	70	2,175
1	W. McClyment & Co	103	2,668
5		584	14,798

THROUGH GATINEAU BOOM.
(Since the 19th June.)

Pierre Charette's raft, composed of 56 double cribs, containing 2,800 pieces of square, flat and round timber.

Owners.	*Sawlogs.*
G. B. Hall & Co	17,153
Hamilton Bros	7,170
	24,323

And 1,825 railroad ties owned by H. B. Rathbun & Son.

Rafts Arrived.

The Quebec *Chronicle* reports as follows:—

June 17—Hilliard & Dickson, white pine and ash, St. Lawrence docks.

June 22—John Latimer, white pine masts, Spencer cove.

D. D. Calvin & Co., oak, &c., sundry coves.

Collins Bay Co., oak, pine, &c., sundry coves.

P. Larkin, elm, oak, pine, etc., Bridgewater.

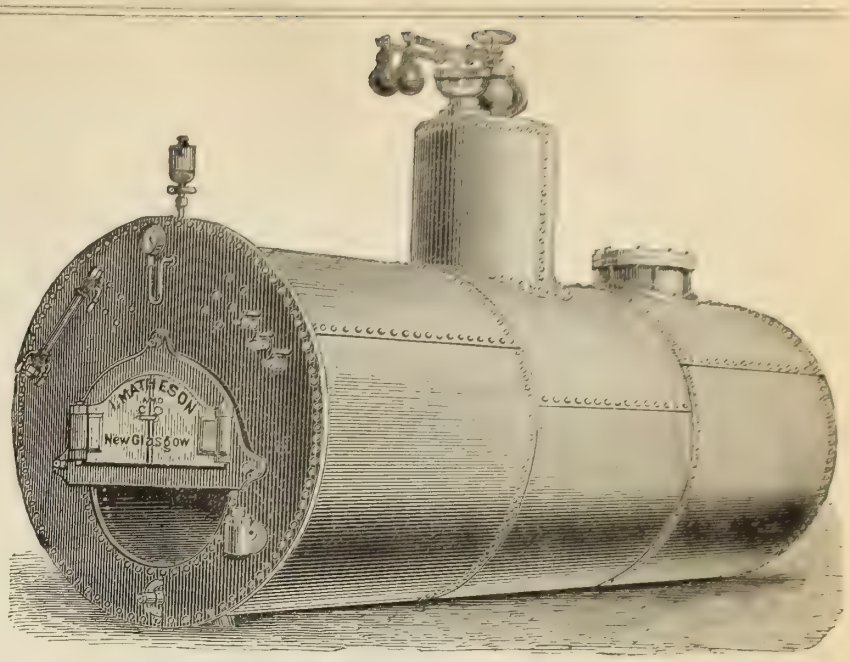
W. H. Kennedy, deals, Prince's pier.

Kelly & McAllister, black walnut, Ottawa cove.

J. Burstall & Co., oak, pine, etc., Woodfield cove.

Sundry lots, staves, Indian Cove West.

A LARGE raft of pine logs came from North Bay, *via* the ship canal, to Sturgeon Bay, Wis., the other day, and belonged to Geo. O. Spear. The raft was 90 feet wide aud fully an eighth of a mile in length. It is regarded as the biggest ever brought into that port.



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I. MATHESON & Co ENGINEERS & BOILER MAKERS, NEW GLASGOW, N.S.

L127

JONES & SON,
Wholesale Lumber & Timber Dealers
39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut
And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.
Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.

L7

THE Parry Sound *North Star*, of June 23rd, says the schooners Niagara and Tecumseth are loading lumber at the P. S. L. Co.'s dock, and the Lothair, Corisande, Sir C. T. van Straubenzee and two of the May barges are expected here to-day or to-morrow. The schooners N. H. Dudley, Pandora, Trade Winds, and Annie Foster took cargoes of lumber from here during the past week.

THE English *Timber Trades Journal* says elm has depreciated in price more than any other kind of wood, owing to the enormous quantity blown down in the October and April gales. The trees were in full leaf in October, and therefore suffered severely. From every part of the country comes the same report that the market is overstocked, and landowners have entirely stopped felling till the present heavy stocks are cleared off.

THE Massachusetts Legislature at its recent session passed a Forestry Bill. It gives towns and cities the right to take land to be devoted to forestry on the same terms as for roads or streets. The title of such lands is then to vest in the commonwealth. They are to be under the care of the State Board of Agriculture as a Board of Forestry, who will appoint skilful, practical foresters to be paid out of the produce, and all surplus is to go to the municipalities ceding the lands.

THE *Northwestern Lumberman* has a communication on "Logging in California," with an engraving from a photograph taken on the Humbolt Logging Railway of a train of cars loaded with redwood logs. Some of them are of truly gigantic dimensions, as shown by comparison with the heights of the men standing near them.

LEATHER BELTING.
Chipman, Renaud & Co.
MANUFACTURERS OF
LEATHER BELTING,
FIRE ENGINE HOSE
LACE LEATHER, &c.
124 & 126 Queen St.
MONTREAL

CABINET WOOD.

A large amount of fine cabinet wood is received at the New York market, one firm handling by far the largest per cent. of the importations, which are in great variety, and much of the woods of very fine quality, especially in veneers. At the establishment alluded to, oak head linings and panel stocks, for cars, are in stock, some of which measure 18 inches in width, forming most desirable material. The firm has an improved board-cutting machine, which slices off boards of a maximum thickness of five-sixteenths of an inch, and 8½ feet long, as fast as two men can handle them, the knife leaving the surface of the board perfectly smooth, no planing beng required, and the fibres remaining as solid and undisturbed as when sawed. Previous to the cutting, the logs to be used are steamed for the purpose of softening the fibre to make it more yielding, and when cut, the boards are thoroughly dried by a single process, requiring but a few minutes, which combines steam-heating and hydraulic pressure.

A MICHIGAN CAMP INCIDENT.

The Bay City *Tribune* gives the following camp story :—"Francis F. Gamnel, connected with Anderson & Buchanan's camp, near Churchill, Ogemew county, in a letter to a gentleman in this city, writes as follows regarding an encounter with a bear on May 14th: As I was in the camp just at dusk, I heard a noise at the corner of the camp, and as I opened the door a cub bear ran past me. My dog ran out of the men's camp just then and pounced upon the cub. He had no sooner got hold of it than its mother, a monster big black bear, pitched upon him to save her baby. I caught an axe and as I went to strike the old bear my weapon hit the top of the door, the bear caught it, and wrenched it from my grasp with tremendous strength. I shut the door and went out of the window to the office where I got a pole with a four inch spike in the end. With this I stabbed the old bear in the body, but she would not let up on the dog until I stabbed her back of the ear. Then she caught the pole with her mouth and jerked it away from me, moving off and letting the dog go. When using this pole I was on top of the cook's camp. The dog was badly injured."

THE Otter Lake *Telegram* says the switch at the dam in Goodwin creek is 1,050 feet long, is graded, and will be tied and railed within a week or ten days. At the dam a slip will be made, and a platform or rollway be built between the slip and the track for loading the logs on the cars. The power to be used will be furnished by a portable engine. For a mile up from the dam the creek is one solid jam of logs.

THE editor of the Omaha *Herald*, desirous of doing something in the way of tree planting on the vast, bald prairies of the west, accepted Governor Seymour's suggestion that he put in black cherries. To the Governor's enquiry as to how he prospered with his planting, the editor is in position to say that of 25,000 of these trees planted three years ago on land seven miles from the city, he finds by actual count that 22,000 are flourishing. The timber, it is thought, will be highly useful in time, commercially, and during the progress of its growth can not but be beneficial to the salubrity of the region in which it flourishes. It is admitted everywhere that when the western farmer plants a tree he is serving himself and his country.—*Lumberman's Gazette.*

BRIGHT'S DISEASE, DIABETES.—Beware of the stuff that pretends to cure these diseases or other serious Kidney, Urinry or Liver diseases, as they only relieve for a time and make you ten times worse afterwards, but rely on Hop Bitters, the only remedy that will surely and permanently cure you. It destroys and removes the cause of disease so effectually that it never returns.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly as to its wonderful effects.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

A ROYAL WOODCUTTER.

A St. Petersburg correspondent of the *Paris*, in an interesting account of the Czar's daily life at Gatschina, says the nervous agitation from which His Majesty has suffered since he was first called to the throne appears to be gaining a stronger hold on his mind every day. In the midst of his semi-incarceration the Czar finds it difficult to take the amount of exercise ordered by his medical advisers, and only obtained a solution of the difficulty by bethinking of Mr. Gladstone's example at Hawarden. The correspondent does not state whether His Majesty so closely follows the example of his friend in England as to fell trees himself, but he displays the utmost vigour in chopping the fallen timber into logs. A short time ago a member of the Imperial family was shocked to find Alexander III. in his shirt sleeves in the middle of an open space in the wood, perspiring freely, and busily engaged in sawing an enormous pine tree into logs of equal length, whilst his eldest son, the Grand Duke Nicholas, was stacking the results of his father's labours."

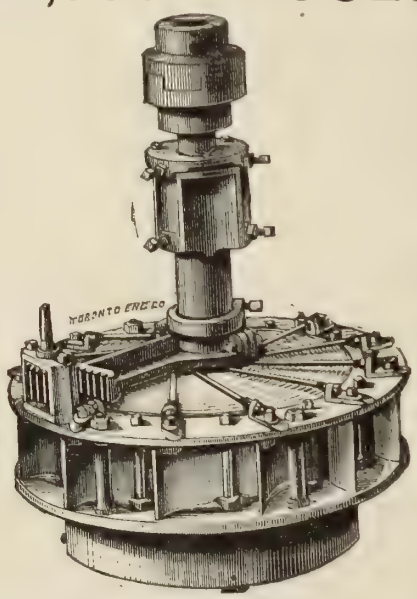
The Removal of Snow in St. Petersburg.

The snow is thrown into pits, which are located at convenient points of the city. It is melted in these by steam, and runs off into the river by suitable channels.

THERE is annually manufactured on the Mississippi River and its tributaries about 1,500,000,000 feet of white pine lumber, with its proportionate accompaniment of shingles, lath, and pickets.

THE *Northwestern Lumberman* says that C. M. and C. Cook, of Lansing, Mich., have been prospecting in Presque Isle county, Mich., with the view of purchasing a tract of pine and hardwood land. Their idea is that the pine business in Michigan will soon be a thing of the past, and they desire to have a quantity of hardwood to fall back on. They intend to erect a mill.

15,000 IN USE!



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Double Turbine Water Wheel,

All Sizes of Stationary and Portable Engines and Boilers, Shafting, Pulleys, Hangers, Gearing, latest improved English and American Gangs.

The Stearn's Circular Saw Mills with Fractional Head Blocks and King of Dogs—this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill. Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Specialty.

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Lace Leather,

Mill Supplies, &c.

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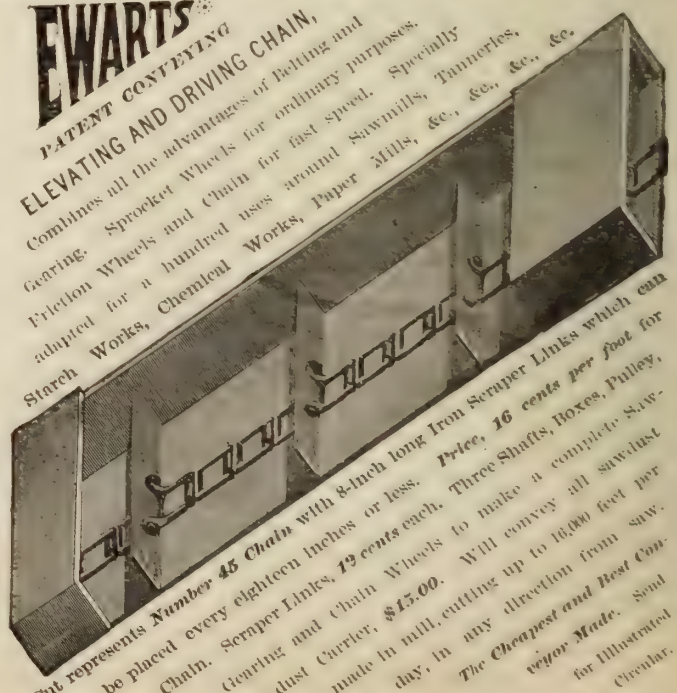
EWARTS PATENT CONVEYING ELEVATING AND DRIVING CHAIN,

Combines all the advantages of Belting and Gearing. Sprocket Wheels for ordinary purposes. Friction Wheels and Chain for fast speed. Specially adapted for a hundred uses around Sawmills, Tanneries, Starch Works, Chemical Works, Paper Mills, &c., &c., &c., &c.



Cut represents *Number 45 Chain* with 8-inch long Iron Scraper Links which can be placed every eighteen inches or less. *Price, 16 cents per foot for Chain.* Scraper Links, *12 cents* each. Three Shafts, Boxes, Pulley, Gearing and Chain Wheels to make a complete Sawdust Carrier, *$15.00.* Will convey all sawdust made in mill, cutting up to 10,000 feet per day, in any direction from saw. *The Cheapest and Best Conveyor Made.* Send for Illustrated Circular.

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HOYT'S CELEBRATED LEATHER BELTING.
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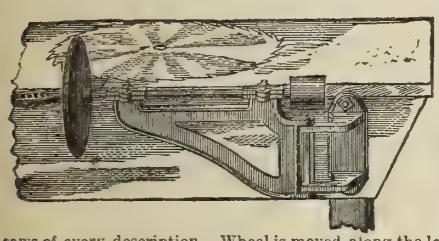
ESTEY, ALLWOOD & CO., SAINT JOHN, NEW BRUNSWICK.



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Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

1L24 T. HODGSON, AMHERST, NOVA SCOTIA.

ESTABLISHED 1820.

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Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

AND AGENT FOR 1L20

"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

FOR THE BEST

TURBINE WATER WHEELS

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Mill Machinery,

ADDRESS:

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Port Perry, Ont.

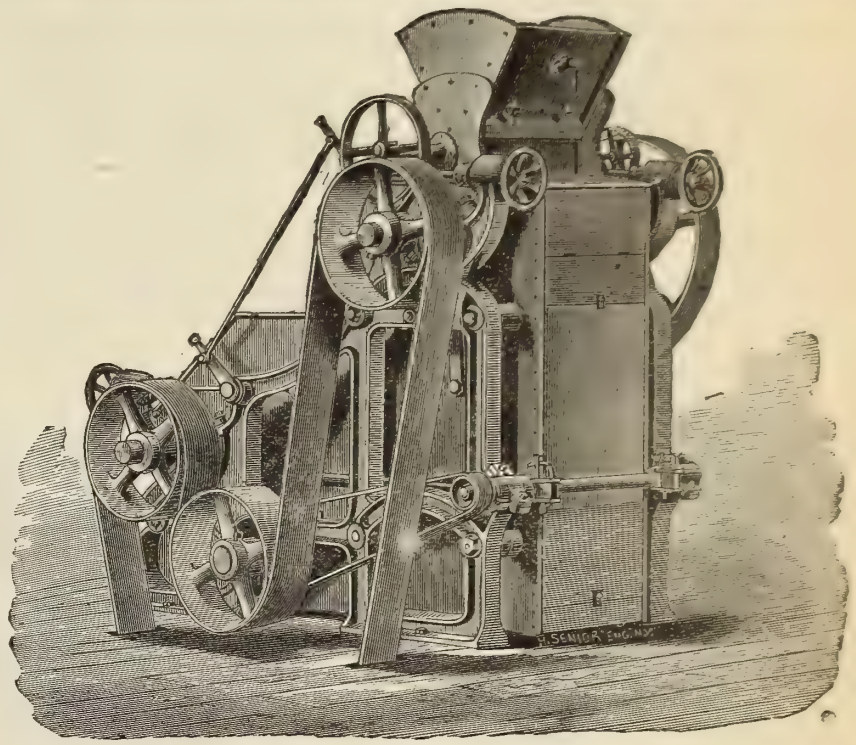
☞*Send for Illustrated Catalogue.* 4L12

THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

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FAMOUS INTERNATIONAL

BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel.
It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.
It is perfectly harmless to Iron, and emits a clear pure Steam.
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Rubber Belting, | Rubber Packing,
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EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

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WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

1L1

EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS — TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ¾ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ¾ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } ¾, ⅞ and 1 inch. Holes,

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1tf13

Tanite Co. Stroudsburg, Monroe Co. Pennsylvania.

CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

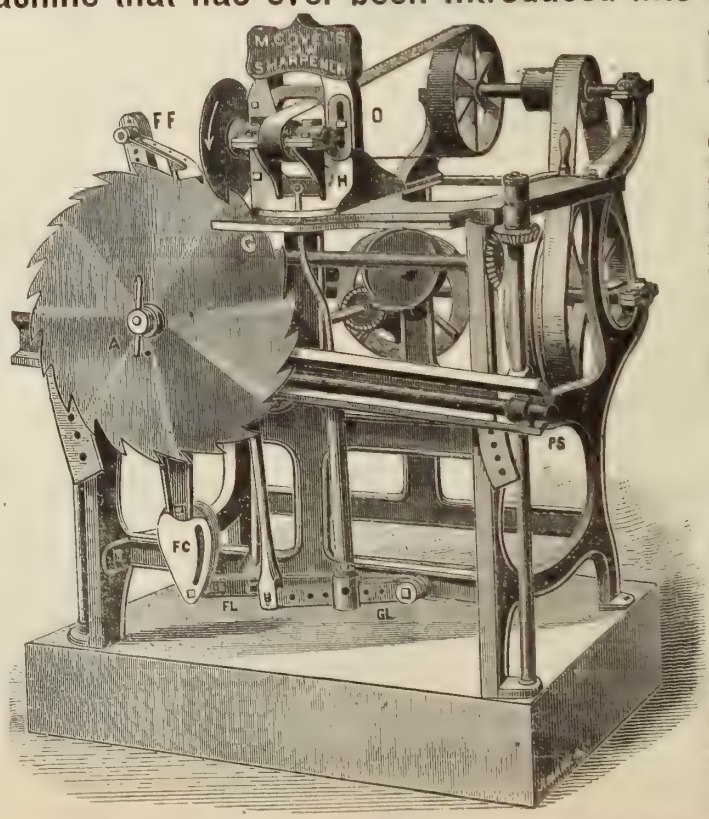
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.

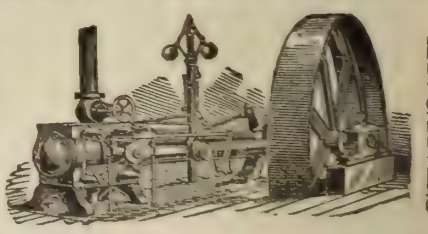


MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS

CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1tf

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

VOL. 2. PETERBOROUGH, ONT., JULY 15, 1882. NO. 14.

On June 22, the steamer *Astrubal*, of London, 1,194 tons burden, with a cargo of cedar from St. John, N. B., collided with an iceberg and went down off Point Lance. The crew was saved.

Forty thousand dollars worth of spruce chewing gum is gathered in Maine every year. The clear, pure lumps are worth $1 a pound. In the large mill cities of Massachusetts the girls consume enormous quantities, one dealer selling $1,400 worth in a year.

The new kindling-wood factory at Lock Haven, Pa., is 37×76 feet in size, and has a kiln that holds 100 cords of wood, which is cut in pieces 1½×3 inches, and thoroughly dried before it is packed. There are 30 improved packing machines employed, operated by boys, who are thus enabled to pack 16,000 bundles of wood per day.

The Stockholm correspondent of the *Timber Trades Journal* says that several large ships are now in coarse of loading between Gefle and Sundswall for Australia, with deals, while planed goods have also been shipped thither to some extent. The consumption in Australia must be increasing rapidly to judge by the quantity of goods now going there.

The *Northwestern Lumberman* says Mr. T. W. Harvey, of this city, has just purchased 35,000 acres of timber limits in the Georgian Bay country, from which he will draw heavy supplies in the near future, Not content with handling more lumber than any other individual operator on American soil, Mr. Harvey, in reaching out for more worlds to conquer, has stumbled against Canada. We shall expect to hear any day that he holds in his capacious pocket title deeds to what little yellow pine there may be left standing down in Louisiana and Texas, with an eye out for the timber Putman is "discovering" in the neighbourhood of Puget Sound.

The Green Bay (Wis.) *Advocate* says: Rafting on Lake Michigan is considered extremely risky even for short distances, and to raft 425,000 feet of logs in one lot, for a pull of 40 miles, takes as much sand as a glass factory; yet the Messrs. Spear, of this place, took this big risk recently. Under the careful management of Capt. Wm. Anger, two days was spent in making the raft at North Bay, when the *Gregory* hitched on and in 14 hours had the raft safe within the canal, without losing a log. The raft was 90 feet wide and about 1,200 feet long, and valued at over $30,000. Then the *Gregory* took the same boom sticks to Europe Bay, where another still larger raft is to be made and it will be towed here. It is expected that half a million feet will be put in this, the second great raft.

THE PORT OF GRANGEMOUTH.

Grangemouth is situated at the junction of the River Carron with the Clyde and Forth Canal, opened in 1790, and through which so much of the traffic to Glasgow passes as almost to justify the styling of Grangemouth the eastern port of Glasgow.

As a timber port Grangemouth holds a leading position, in proof of which it may be mentioned that in the year 1881 no less than 87,670 loads of hewn and sawn timber were discharged there. There are several firms of timber merchants in the port doing a considerable business, whilst the extensive saw mills of Messrs. Alexander Thompson & Nephews, Macpherson & McLaren, W. Kerr & Co., and others, afford ample facilities for dealing with the large importation.

The ground acquired for the construction of the new docks extends to nearly 60 acres, and while 19½ acres of this is the water area of the new docks and timber basins, the actual dockage area is about 10½ acres. This, in addition to the old docks with timber basin, will give about 28 acres, a large portion of the old area being available for graving dock purposes should the trade of the port so increase as to render it necessary for it being required for such a purpose.

THE SEASONING OF WOOD.

Wood requires time in which to season very much in proportion to the density of the fibre. But this rule is not without an exception, for pitch pine, which is not at all a densely fibered wood, requires a long time in which to season, even when the process is conducted under favorable circumstances.

This occurs probably in consequence of the resinous character of pitch pine, the resin clogging the pores of the wood and thus stopping up the channels through which the moisture would otherwise exude. There are some woods—and mahogany, ebony, and some other of the tropical woods are of the number—that even in their living state contain very little moisture.

Plants that are of slow growth contain less moisture when in a living state than do those whose growths are rapid. A mahogany tree requires 500 years in which to mature, and, as a consequence, its texture is exceedingly dense. Being dense in texture, it requires a long time to properly season, and during that lengthened period it shrinks very little. Mahogany should not be kept longer than necessary in the log, because insomuch as the outside portion of a log contains the greatest amount of moisture, and it being the exposed part, it will, as the wood dries, shrink more than the inner wood, and so, to allow for the outside shrinking, outside shakes will and must occur.

The same remark applies with equal force to all log timber, but we name the circumstance in connection with mahogany particularly for the reason that it is a general practice for some to keep their mahogany logs in an unsawn state, under the misapprehension that the logs will not deteriorate. When it is required to keep the logs in comparative bulk, it will be found to be a convenient method to have one cut put down the centre of them, which, as a rule, will be sufficient to obviate any tendency to outside shake that may arise in consequence of their shrinking on the outside. When cut, mahogany boards should always be laid aside to season in the same order as they left the saw. Strips of accurately sawn wood should be placed at intervals of a not greater distance than 12 inches from each other, and we are inclined to advise that the strips of wood be placed even closer together than that.

It is advisable that some woods should be seasoned quickly, and others should dry slowly. Mahogany must be seasoned slowly. To season it thoroughly and well, periods should be allowed in something like conformity with the following table:—

TIME TO BE ALLOWED FOR SEASONING IN THN OPEN.

Thickness of boards.	*Months.*
⅜ inch	12
½ inch	12
⅝ inch	16
¾ inch	20
1 inch	24
1¼ inch	30
1¾ inch	33
2 inch	36
3 inch	46
4 inch	56

Pine boards should be seasoned on very much the same plan as that we have recommended for the seasoning of mahogany boards. We suggest only this alteration, that they should be placed where the wind can reach them, for they should be dried quickly. The reason for this is that pine is a wood which is prone to rapid decay, and therefore the quicker it can be placed in an absolutely dry position—such, for instance, as being made up into internal joinery work—the better.

Whitewood cannot be satisfactorily dried by artificial means, for it twists under the action of heat. Whitewood hardens very much by being exposed to the weather. The reason of this is that from its sponge like texture the pores of the wood rapidly close when evaporation ensues.

The system of stacking flooring boards to dry in triangular fashion is much to be condemned for several sufficient reasons. The first is that, when so piled, boards will hold no inconsiderable quantity of snow or rain water.

The second is that they do not dry in those places where the boards must necessarily touch each other in the crossing.

The third reason is that when the boards are in long lengths they have a natural tendency to "swag" in their centers, and so to dry in a twisted or crooked form.

It is to be borne in mind that although wood the grain of which is of a twisted character has a natural tendency to dry crooked, yet that it can, by being judiciously weighted, be kept straight.

This fact suggests to us that even straight-grained wood will dry in a crooked form, if when left to season it be allowed to assume a bent form, and that this being so it is imperative that the piling of wood into position for seasoning should be directed by care and intelligence. —*The Builder.*

STAVELESS BARRELS.

The logging camp of the Mattulath Manufacturing Company is located at Carson, a half mile from Puyallup. They are getting out 20,000 feet of cottonwood logs per day, using the labor of seventeen men and four yoke of cattle. These logs are made into rafts and towed to the factory at Seattle. The campany think they have a great improvement in the sheet barrel, which is made by cutting a log into barrel lengths, softening them by a steam process and then shaving each piece into a long sheet, unrolled like a carpet. Each sheet is then crosscut into such a length that when the two ends are brought together it is given the size and form of a barrel, without heads, the whole being done by machinery. This has proved a great improvement over the stave barrel in cost of manufacturing as well as in merits for use. The only drawback, if drawback it may be called, is that clear timber is required in this case, all the knotty timber being rejected, whereas for staves knotty timber may be used. Consequently the best of the cottonwood is now being culled out, and unless the supply of virgin forests of this kind proves illimitable, they will after a while be compelled to return to the manufacture of staves exclusively.—*Ledger.*

Puget Sound Business.

Lumber is reported higher in the Puget Sound district than ever before, while stone and brick have declined to the lowest notch. This curtails the lumber demand for building purposes, which some time ago was quite considerable, owing to the then low prices of lumber. Notwithstanding this decrease in a branch of the demand, there has been an extra good volume of trade in lumber on the Sound all the season, which goes to show that the uses of lumber are so many and extensive that one item of consumption is a small matter in the general result, even though it be the important one of building. The Puget Sound product goes largely to supply the coast trade, particularly for shipbuilding. —*Northwestern Lumberman.*

A Large portion of the Kippewa district is flooded owing to defective dams. Considerable damage has ensued.

THE FORESTRY SOCIETIES.

NORTH BEND, Hamilton Co., O., July 4.

Messrs. Toker & Co., Peterborough, Ontario :

GENTLEMEN,—Allow me to acknowledge with my sincere thanks the receipt of your excellent and very interesting paper. The number for July 1st is before me with its reference to the Catalpa. I send by this mail a pamphlet monograph of this tree which you may not have seen.

The Montreal papers of June 15 are a little mixed in regard to the two forestry societies, both of which have adjourned to meet in Montreal, August 21, of which you should be advised.

The *American Forestry Association* was organized at Chicago, Ill., in 1875, and thus designated so as to gain the talent of the Dominion. This society recently met at Rochester, N.Y., (June 20) and anjourned to Montreal with the hope of combining the talent present there.

The *American Forestry Congress* organized at Cincinnati, Ohio, as you have already noted, April 25-29.

Anxious to aid in the success of the undertaking, circulars were issued to those interested in the A. F. A., asking their attendance and papers, and they contributed largely, but had no time for discussion, hence the necessity for the Rochester meeting on June 20, when an election was held, and the President of the Congress was elected in prospect of a consolidation of the two bodies, toward which result a committee of conference was raised to effect such a desideratum. The Association adjourned to meet at Montreal on August 21.

I write this to enable you to understand that, though two societies exist, there is no disagreement ; both are anxious for the success of forestry.

I am waiting to hear of Dr. Loring's acceptance of the office, not yet received.

Yours respectfully,

JNO. A. WARDER, M. D.

Ex-Pres. & now 1st V.-Pres. A.F.A.

MONTREAL NOTES.

The *Gazette*, of July 7th, says :—During the past week or ten days quite a fleet has left port with deals for the United Kingdom, and lumber for South America. The barques *Nyham, Sheldon* and *Reindeer* have sailed with deals for West Hartlepool, the barques *Cupid* and *Sucz* with lumber for Montevideo, the barque *Wimmera* with part cargo of deals for London, the the brig *Excel* with deals for Cardiff, and the brigantine *Zeno* with lumber for Rosario, Buenos Ayres. A number of other vessels are being loaded, and we hear of charters to South American ports at $15 to $17, a small vessel having been engaged at the outside figure. The lumber trade in this city during the past week has been fair for the season, and the month of June closed much better than was expected, the sales footing up a good aggregate. The receipts of both hard and soft woods during the week have been pretty full, and the yards are being rapidly replenished with new stock. Arrivals have been liberal from the Ottawa, as well as from ports between here and Quebec. We hear of great complaints regarding the slow traffic over the Q. M. O. & O. Railway, shipments of lumber in some instances having taken as long as a week in coming from Ottawa to this city, which is causing great annoyance to dealers here who sell to customers for delivery within a certain reasonable time. The prospects for building up an extensive lumber trade with Manitoba are increasing. During the week a number of cars of red and white pine have been shipped from this city to Winnipeg, white costing from $20 to $25 per M. feet delivered on cars, a choice lot having commanded as high as $30, and red at $16, average quality. Besides pine we notice a demand for hard woods is springing up in the Northwest, and sample lots of cherry, ash and walnut have already been shipped to Winnipeg on the basis of $60 for cherry, $100 for walnut, and $20 for ash. There is still a demand for hardwood on American account, the sale being reported of a boat load of ash at $20. Shipments are being made to Lake Champlain ports and through to Boston. We also notice shipments of eight cars, chiefly white pine, to Portland, Me., last week. We quote prices at the city yards as follows :—Hardwood—Black walnut, per M. feet, $80 to $100 ; oak, $45 to $60 ; maple, $25 to $35 ; birch, $20 to $35 ; rock elm, $30 to $35 ; ash, $20 to $25 ; butternut, $35 to $40 ; cherry, $60. Soft wood—Hemlock, per M. feet, $9 to $10 ; spruce, $10 to $12 ; basswood, $15 to $18 ; pine, 1st quality, $35 to $40 ; pine, 2nd quality, $20 to $30 ; pine, mill culls, $10.50 to $12 ; shipping culls, $15 to $16 ; pickings, $20 to $25 ; first and second qualities, $30 to $40. These prices of course would be shaded for large quantities.

QUININE TREES.

During the last two or three years a bark containing quinine and quinidine has been imported into England from Columbia in such enormous quantities as to equal or even sometimes exceed the whole of the importations of cinchona bark from all other countries. The botanical source of this bark, which is known in commerce under the name of Cuprea Cinchona, on account of its peculiar coppery tint, has hitherto been a mystery. M. Triana, the well known quinologist, has recently succeeded in tracing it out, and has stated, in the *Pharmaceutical Journal* for April 22, that it is derived in great measure from two species of the nearly allied genus *Remijia*, none of the members of which were previously known to contain quinine. Several species of *Remijia* have leaves resembling those of the true cinchonas, and of these M. Triana has determined that *R. purdieana*, Wedd., and *R. pedunculata*, Karsten, certainly yield cuprea bark, the former being the species which contains the alkaloid cinchonamine, recently discovered by M. Arnaud. It appears probable that other species also yield the cuprea cinchona of commerce, but definite information on this point is still wanting. The value of this bark has led, according to M. Triana, to a great devastation of the forests in which the trees grow, and has produced a financial stagnation, business being neglected in order to follow the more profitable occupation of collecting the bark. Fortunately seeds of the tree have been received and are now in cultivation at Malvern House, Sydenham. The tree is likely to prove valuable for cultivation in countries where malarial fever abounds, since it grows at an elevation of 200-1000 meters above the sea, at which even red cinchona bark will not flourish.

READY MADE HOUSES.

The Winnipeg *Times* says :—"The great demand for building and sleeping accommodation experienced by everybody coming to this country—caused by the immense influx of people—has set inventive minds to work, and many plans in the way of tents, portable houses and impromptu erections, etc., etc., have been brought into service, but the most practical arrangement yet offered is a portable house of large dimensions, which has just arrived and has been placed in our midst, within, it might be said, a few hours. L. Forrest, of Belleville, Ontario, is the inventor of a plan, which has been pronounced, by some of the best architects and builders to be the most practical and at the same time best adapted for our North-west climate yet offered. It being not only warmer and stronger than the ordinary plan of buildings, but cheaper, and, what is still better, is in the true sense about the only portable house of any great dimensions, that has been offered, can be erected and taken down at will, it is just the thing for those wishing to follow up the advance of the boom westward, or a farmer wishing a house put on his farm, can take it with him, and without the aid of a gang of carpenters, can put up his own house in a few hours, all complete, and if desirious can change his locality in the same length of time. A model house of over 100 feet long and two stories high, fitted out with rooms and furnished with beds, bedding, carpets and everything, has just been put up on the corner of Logan and Mary streets, near Main, complete, sufficient for the accommodation of 250 guests, and all done in an almost incredibly short space of time. The foundation was not all on the ground until Tuesday forenoon, when the work of erection was started, and the last piece of rooffing was placed on Thursday forenoon about the same hour, showing what can be done on this plan. A detailed descriptoin of this modern edifice would, perhaps, take more space than we can afford, but suffice it to say that it is all put up in three feet sections on the principle of dovetailing and grooves, which is the most substantial way of putting wooden structures together. A company has been formed at Belleville for the purpose of manufacturing these houses. Mr. Forrest, although a Canadian by birth, is somewhat an American in his movements, and is prepared to push his enterprise to its utmost.

RAFTS AT QUEBEC.

The Quebec *Chronicle*, of July 7, has the following lists of rafts arrived :—

June 30—D. C. Thompson, staves, sundry coves.

Sundry lots, oak, elm, ash, &c., Indian cove west.

McLean Stinson, pine, oak, &c., Dobell's (Sillery).

Hilliard & Dickson, white pine, St. Lawrence docks.

Thos. Buch, pine, oak, &c., New Liverpool.

W. Hunt & Son, walnut and oak plank, Drum's wharf.

Sundry lots, deals, &c., sundry places.

J. Francis & Co., white and red pine, Cap Rouge.

July 3—R. & G. Strickland, white pine, Dobell's cove.

Wm. Mackey, white pine, Hadlow cove.

Alex. McEwen, white pine, etc., Hadlow cove.

David Moore, white pine, etc., Cap Rouge.

E. L. Kelsey, staves, New Liverpool.

Jno. Burstall & Co., masts, Woodfield cove.

July 6—J. Burstall & Co., masts, Woodfield cove.

Thos. Buch, white pine, New Liverpool.

W. McClymont, white and red pine, Cap Rouge.

W. Henry Row, white pine, &c., Bridgewater cove.

Jas. Gibson, jr., birch and ash, Hadlow cove.

FOREST TREES OF CANADA.

Prof. Bell, assistant director of the Geological Survey of Canada, has compiled a neat little work, showing the geographical distribution of the forest trees of Canada. The book is accompanied by a map on which the general northern limits of the principal forest trees are marked. This is the first work of the kind that has been issued in Canada. The tree-lines have been laid down chiefly from observations made by Prof. Bell during the last twenty-five years, extending from Newfoundland nearly to the Rocky Mountains, and from the northern United States to the eastern and western shores of Hudson's Bay. The continent of North America possesses a great variety of forest trees. About 340 different species occur within the United States. All the kinds which we have in Canada, amounting to about 90, including those on the Pacific slope, are also met with in that country. Prof. Bell points out that in the western peninsula of Ontario the forests present a remarkable richness in the number of species to be found growing together. In some localities as many as fifty different kinds may be counted growing together on a single farm lot. A more varied mixture is probably not to be met with in any other part of the continent, or perhaps in the world. One of the principal uses of Prof. Bell's map is to indicate the area within the Dominion throughout which each kind of timber exists. A knowledge of the limits of our different trees is also valuable as indicative of climate. Certain trees cease to exist when they come to regions subject to severe spring or summer frosts, or where early autumn frosts prevent them from maturing their fruits.—*Toronto Telegram.*

MAINE LOGS.

The Bangor, Me., correspondent of the *Northwestern Lumberman* writes as follows :—The cut of logs on this river the past winter is from 130,000,000 to 140,000,000 feet, principally spruce, which, with about 60,000,000 feet which remained over in the booms from last year, makes about 200,000,000 as our supply for this season. All the drives are now secure, excepting 2,000,000 to 3,000,000 feet, and all in the boom, excepting the East and West branch drives, the former of which will be in in about two weeks and the latter in about five weeks. The Orono correspondent writes under the same date :—The drives have all arrived in the booms, except the drives from the West branch and Sebois, and these will be in by the last of July. The West branch drive contains about 35,000,000 feet, and the Sebois 5,000,000 feet. There are 40,000,000 feet of logs in the boom at this time, and 45,000,000 have been rafted out this season. Reckoning 20,000,000 feet as the amount of logs wintered in the boom, and 9,000,000 feet from the Passadumkeag, which do not go into the boom, gives us 150,000,000 feet of logs as the supply for this river, including those wintered at the mills.

Forest Fire.

The *Astorian*, (Astorin, Oregon Territory), describes a recent fire in the vicinity of its town as follows :. "During the last week a fire was out across Young's Bay, that, starting at first as a little smouldering mass, was fanned into a fierce flame by the dry winds from the east. Friday last, the scene, as described by an eye witness, was grand. Great trees were clouds of smoke by day and pillars of fire by night. Crimson sheets of flame streamed out from giant pines and great heaps of burning moss blown through the air lodged in the tops of adjacent trees, instantly converting them into a mass of flames that encircled the trunk and rose high in the air above. The roar of flames was distinctly heard in town. Fortunately no damage was done, though woodmen in the immediate neighborhood had great difficulty in saving that which was cut and piled."

SWEDEN.

A correspondent of the *Timber Trades Journal* writes as follows from Stockholm, on June 17th :—According to intelligence received from Norrland, the flood, caused by the melting of the snow on the mountains, has this year been more sudden and violent than usual. The floating has, therefore, had to be done with care, so as not to allow the logs to be taken by the torrent on to low-lying ground, with the risk of having the timber lying high and dry when the waters recede. This is one of the costliest accidents which can happen to the floating contractor, and he is therefore on his guard against it as much as possible. Everything, however, points to the conclusion that the "drives" from the small streams this year will be pretty clean, and consequently that a large number of the logs will reach the saw mills before autumn.

NORWAY.

A correspondent of the *Timber Trades Journal* writes as follows from Christiana, June 17th :—There is little or nothing of interest to the wood trade to report just now. This time of year is always pretty dull as regards shipments, for nearly all our vessels go into the Baltic or American trade after their spring voyage from home, so that tonnage remains scarce, and consequently rates of freight high during the summer months. Although this state of things is repeated every year quite regularly, importers on your side seldom seem to realize the fact that such regular increase of freight tends to enhance the c. i. f. prices, if the cost value remains stationary, and to check any actual decrease in the general market price for delivery.

Australian Trade.

Messrs. Gemmell, Tuckett & Co.'s timber report, dated Melbourne, April 8th, says :—We have to report a fair trade demand during the month for most descriptions of wood goods, and considerable sales have been carried through at auction, at prices nearly supporting last month's rates. American lumber—We report sales ex *Warwick Castle* and *Somersetshire*. 12 in. w. p. shelving brought £14 12s. 6d. to £14 10s. ; 4 M. clear do., £16 10s. ; 2 in. Canada clear, 7 to 11 in. wide (an English shipment), only realized £11 to £12 per M. super Arrivals during the month—14,127 ft. w. p. ceiling, 198,633 ft. w. p. shelving, 192,397 ft. clear pine. These will fully supply the market until fresh arrivals, and prices are not likely to advance above present rates. The trade hold moderate stocks.

SQUARE timber to the value of $14,500 has been shipped thus far this season from Elk Rapids, Mich.

F. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

LEATHER BELTING

First Prize, Provincial Exhibition.....Ottawa, 1875
First Prize, Provincial Exhibition..... Hamilton, 1876
First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition.....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

L21

81 Colborne Street, Toronto

Can Trees Stop Tornadoes?

The time will come, because human necessity will compel it, when the unnaturally deforested plains of the West will be grand in their growth of noble trees. When they are, tornadoes will be broke in their force by some belt of timber, *chevaux de friese*, which meets and breaks the force of the storm. It is folly to say that the plains will not grow trees. In riding across them any common observer can see where magnificent oaks have survived as a testimonial to the worth of the soil. They stand stately in their silence on solitary knolls, above and beyond the prairie fire. Given the trees, the forest in fact, we have the essentials, the break against the winds, the timber for building, and the firewood, the three crops of which the plains are most in want, but all can be summed up in the words "timber shelter." Trees can stop tornadoes.

Peterborough.

THE DRIVES.—The saw log drives are coming along very slowly this season; none have passed through here since those of Messrs. Rathbun & Son, and Messrs. Ulyott & Saddler, consisting of 200,000 logs; all under the foremanship of Mr. James Lynch, one of the best foremen in the business that runs these waters. The logs were all to be assorted at Harwood on Rice Lake.

THE SHINGLE MILL.—The new raceway is now completed, and when the driving wheel is put into proper order, which will take a few more days, then Mr. Kearns will be making the shingles fly out of the slabs and logs in a hurry, and will keep the packers busy from now until winter.

Lindsay.

FINE TIMBER.—Messrs R. & G. Strickland of Lakefield, have just finished shipping from Lindsay, a large drive of square and board pine timber of 2,472 pieces or 140,000 cubic feet, which they have sold to a firm in Quebec at $3,50, per foot delivered. This is undoubtedly the finest lot of timber that has been shipped over the Midland Railway this season.

BIG LOADING.—On Monday the 10th July, Mr. John Buller, of the Midland Railway, loaded at Lindsay, 21 cars with timber, 10,136 cubic feet, in four hours. Average number of feet per car 482⅔. Average time per car 11.3-7 minutes.

DURING the past three weeks there has been great activity along the river at Lindsay, owing to the fact that Mr. Irwin and Messrs. R. & G. Strickland were shipping large quantities of timber over the Midland Railway to Port Hope, where it is being rapidly rafted for Quebec. They have just completed shipping two large drives of square and board timber of 4,472 pieces, or 225,000 feet, and Mr. Irwin expects another large drive of 2,300 pieces shortly.

USELESS FRIGHT.—To worry about any Liver, or Kidney or Urinary Trouble, especially Bright's Disease or Diabetes, as Hop Bitters never fails of a cure when a cure is possible. We know this.

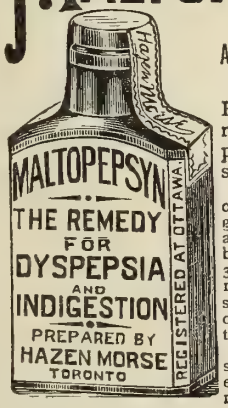
C. BRITTON, Lindsay, Ont., writes:—"I have much pleasure in recommending Baxter's Mandrake Bitters in all cases of Jaundice, Biliousness, Sich Headache and Liver Complaint, for they have given universal satisfaction, and I have sold more of them the past season than any other one patent medicine."

Frauds by a Lumber Firm.

DETROIT, July 7.—The well-known lumber firm of King, Quick & King, doing a heavy business at the village of Lowell, were arrested by the sheriff charged with the larceny of logs from Flat River. The complainants are the Michigan Barrel Company, of Grand Rapids, White & Freant, of Grand Haven, and others. It is alleged that during the past three years no less than $20,000 worth of logs have been stolen from Flat river. Detectives have for some time past been engaged on the case.

AN Ottawa correspondent, dating July 7th, says:—Since the first of July there passed through the Madawaska slides 247 cribs, containing 5,769 pieces of timber. Since the 3rd instant, there has left Ottawa 765 cribs containing 14,620 pieces of white pine and 4,859 pieces of red pine. Since the 3rd instant, there has left Gatineau boom 17,892 saw logs, 1,557 pieces of cedar, and 6,632 railway ties.

MALTOPEPSYN



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Artificial Gastric Juice.

A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the rules of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

GRATEFUL—COMFORTING.

EPPS'S COCOA

BREAKFAST.

"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*

Made simply with boiling water or milk. Sold in packets and tins only (½-lb. and lb.) labelled

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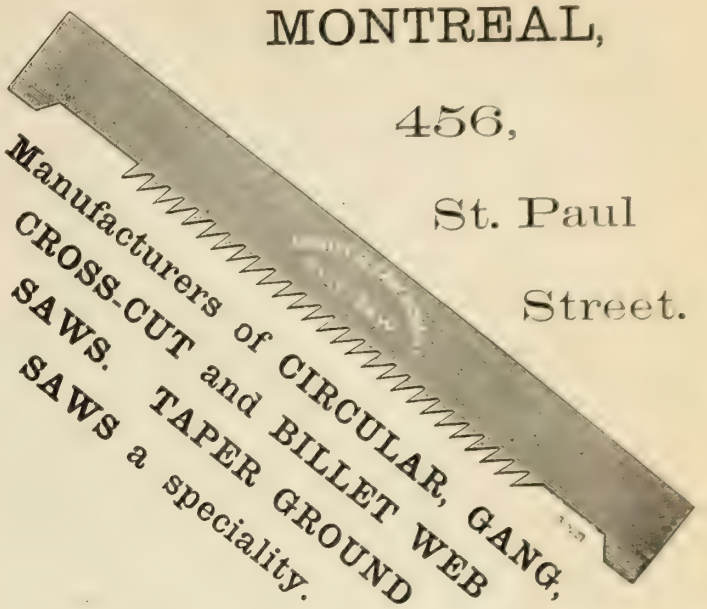

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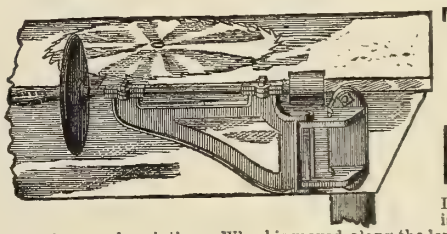

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Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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14 to 34 King and Queen Streets, MONTREAL,

MAKER OF

Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

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Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

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"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

AMERICAN FORESTRY ASSOCIATION.

A meeting of prominent men from different parts of the country was held in the Common Council Chamber, Rochester, on June 20th, to reorganize the American Forestry Association. Dr. John A. Warder, of North Bend, Ohio, occupied the chair. The Association has for its object the planting and protection of forest trees. An interesting discussion of the subject was entered into by the members present. A committee consisting of C. A. Greene, E. Moody, William Little, A. W. Weber, and J. W. Manning, was appointed to prepare a form of constitution for the society.

The Association re-convened next morning in the Common Council Chamber. The committee appointed to draft a constitution reported the following, which was unanimously adopted:—

§ I. This body shall be called the American Forestry Association, and shall seek to promote the interests of forestry and to disseminate information connected therewith.

§ II. The officers shall be a President, First Vice-President, Secretary, Corresponding Secretary, and Treasurer—who shall constitute an executive committee with power to act on behalf of the association. There may also be one Vice-President for each state, territory and province in North America. The term of office shall be one year or until their successors are appointed.

§ III. Meetings shall be held annually, or at such times and places as the Executive Committee may direct, for presentation of papers, discussions, and practical matters relating to forestry.

§ IV. Any person recommended by a member of the Executive Committee, may be elected to membership on payment of $2. The annual dues shall be $1.

§ V. The Executive Committee shall have full authority to act for the Society in any emergency.

§ VI. This constitution may be altered or amended at any regular meeting by a majority vote of the members present.

The committee appointed to nominate officers reported the following named persons who were unanimously elected:—

President—George B. Loring, Washington, D. C.

Secretary—J. Jenkins, Winona, Ohio.

Corresponding Secretary—Prof. R. S. Warden, Cincinnati.

Treasurer—D. W. Beadle, St. Catharines, Ontario.

Vice-Presidents.—Maine, George Sawyer, Wiscassett; New Hampshire, Ex-Gov. Fred. Smith; Massachusetts, N. H. Egleston, Williamstown; Rhode Island, H. G. Russell, East Greenwich; New York, H. Seymour, Utica; New Jersey, George H. Cook, Rutgers College; Pennsylvania, Thomas Meehan, Germantown; Maryland, Gov. Hamilton; District of Columbia, John Saul; West Virginia, Hon. H. G. Davis, Piedmont; Ohio, Geo. Weltz, Wilmington; Indiana, J. Ingersoll, Lafayette; Michigan, W. J. Beal, Lansing; Kentucky, Cassius M. Clay; Tennessee, John W. Lee; North Carolina, S. D. Kelsey, Highlands; South Carolina, D. Wyatt, Aiken; Alabama, Charles Mohr, Mobile; Florida, J. G. Knapp, Lanona; Wisconsin, Hon. W. E. Smith, Madison; Minnesota, George L. Becker, St. Paul; Dakota, H. M. Thompson, Preston Lake; Wyoming, Hon. John W. Hoyt, Cheyenne; Illinois, Arthur Bryant, Jr., Princeton; Missouri, S. M. Gray, Columbia; Iowa, Chas. E. Whiting, Whiting; Nebraska; Hon. R. W. Furnas, Brownville; Kansas, George C. Brackett, Lawrence; Louisiana, ——; Arkansas, F. L. Harvey, Fayetteville; Texas, G. C. Georgeson, College Station; Colorado, D. S. Grimes, Denver; Utah, J. E. Johnston, St. George; California, Robert E. C. Stearns, Rerkeley; Nevada, ——; Oregon, J. B. Dufur; Idaho, ——; Quebec, Jas. Little, Montreal; Ontario, Wm. Brown, Guelph, Ont.

The following preamble and resolution was adopted:—

Whereas, The American Forestry Congress has recently been organized with the same objects and field as the American Forestry Association.

Resolved, That a committee of three be authorized to negotiate a union of these two bodies.

Resolved, That if this union be effected at once, the first meeting of the united association be held at Montreal, August 21 and 22, 1882.

A motion was then passed to the effect that when the Association adjourned it should adjourn to meet again in Montreal on August 21. The Chair was instructed to appoint three gentlemen as a committee to make the desired negotiations with the American Forestry Congress.

Norman J. Coleman, editor of the *Coleman Rural World*, of St. Louis, Mo., made some remarks in regard to the efforts of Dr. John A. Warder, the retiring President of the Association, for the good of the cause, and, on motion of the speaker, a vote of thanks was tendered to Dr. Warder.

Remarks were then made by Dr. Warder, Wm. Little and N. J. Coleman upon the question of preserving forests, and the best means of preventing the wholesale destruction of trees. E. C. Selover, of Geneva, followed with brief remarks. He advocated running the state experimental station in the interests of forestry. The convention then adjourned.

THE USES OF HARD WOODS.

The amount of hard woods, or "white woods" as they are called in the trade, in contradistinction to the resinous and gums, which are used in one form or another in the mechanical arts, in agriculture and domestic life, is simply astounding to one who has never considered the matter. You have only to think how many handles of one sort and another—axe, pick, spade, plow, hatchet, hammer, etc.—are used on every farm, and apply that scale to the agricultural proprietors of the world, to see the amount of these woods that are in constant demand. Consider the vast number of mechanical pursuits in which these are indispensible. Think of the number of sledge and hammer handles that must be worn out in making cars, boilers and engines, of the pick handles that must be had to build railroads, grade and pave streets, dig tunnels, sink shafts, mine iron and coal, gold and silver, and some idea of the vastness of the demand for even handles alone may be had. But this is only one of the various forms in which this product of nature is daily consumed by the insatiable demands of civilization. Cogs, pulleys and mallets, spokes and hubs, shuttles and bobbins, and a thousand specific devices for saving time and labor, must be made out of these woods.

Think now of the innumerable vehicles, all of which are to be supplied with spokes and hubs, rims and felloes, shafts, axles, spring bars, coupling poles and other essential parts. There is no present likelihood of there being any substitute found for such woods in these uses. There will never be a metallic handle for the axe or pick of practical utility. The elasticity and lightness of wood are essential in all these uses. In others still other qualities, as lack of friction or imperfect conduction, are necessary. Shuttles must be made of a closely knit wood which may be worked very thin, yet remain firm and light, and take a very high polish. Mallets, as for the use of stone-cutters, must be made of a heavy, close-grained, elastic wood, which will not splinter nor become indented from a long succession of hard blows upon the chisel head. There are but few kinds of wood which are adapted to any of these uses. Foremost among them all, as the great mechanical wood, is the hickory. Its whiteness, hardness, toughness, elasticity and durability, together with its capacity to assume a reasonable finish, and almost absolute freedom from splinters and checks, give it easily the supremacy over all other hardwoods. It is true that in some of the uses to which these woods are devoted, the hickory is not as good as some others. It would not make as good a shuttle as the persimmon, as good a plane stock as the apple, as good a stamp or roller as the maple, as good an engraving material or as fine rings or croquet balls as the box or dogwood; but while these woods excel it in these peculiar uses, they are useless in a thousand others where hickory is unapproachable. As a material for all classes of handles, light spokes, rims and shafts—in short whenever both stiffness and lateral elasticity are required together, it is without a rival. It is among woods what steel is among metals. Two kinds of oak, the white and post, are sometimes used for the grosser purposes in which the qualities of hickory are required, as large spokes, felloes, etc., as well as many other purposes to which it is peculiarly adapted. The ash is the only other elastic handle wood, and its tendency to split between the grains, as well as its unreliability and its variableness in quality, make it undesirable except for a few purposes—as the spade, pitchfork, and the like—where lightness is requisite. Where solidity only is required, the beech, maple, holly, apple, and a few other woods may be used. Among the best of these inelastic woods, however, are the persimmon and dogwood.—*Wood Worker.*

AN ACROBATIC LOGGER.

There is an acrobatic and gymnastic talent outside the circus ring, and when some important emergency calls it into play, it will develop in the most unlooked-for places some times. The logging business is fraught with dangers and hardships, and many of the adventures of the sturdy logger might creditably grace the pages of romance, and would put to shame the extravagancies of Munchausen. One of the most thrilling feats was that of an acrobatic logger who had been peeling bark for some days in the Moosic mountains near Carbondale, Pa. He was likewise engaged in removing the logs to a mountain skidway near Herrick Centre, 250 feet below. While Harkness was at the skidway handling a log his canthook lost its grip and he his balance, so that he was thrown down the embankment in advance of the rolling logs. The logger was between two fires—behind rushed the freed timber, in front was the river covered with a tangle of logs. It was a terrific race between man and log. But the endangered logger thought and acted quickly. He shot down the mountain side to a certain point, where he gathered himself and made a tremendous leap out into the water. He struck a narrow space between the logs, coming under the pole in good order, and the plunge carried him beneath the surface just as the pursuing log dashed to the water's edge, and broke badly, coming in decidedly blown. The man kept his wind well and was rescued by his companions only a few feet from where the losing log struck the water. It was little short of a neck and neck contest. The logger kept his grip on the cant hook, and had it when pulled out of the water.—*Northwestern Lumberman.*

ENCOURAGING TREE PLANTING.

A few years ago Congress passed a law to encourage the growth of timber. Under its provisions and with a view of availing themselves of its advantages, the farmers in the far west are planting thousands of acres with young shoots and saplings, which in a few years will undoubtedly make climatic changes fraught with untold beneficial results. The wisdom of the law, says the Boston *Advertiser*, becomes more and more apparent as time goes on. They promise to counterbalance the wholesale destruction of forests in the older section of the country by creating new tracts of woodland upon the vast bare plains of the trans-Mississippi region. They appeal directly to the individual self-interest of settlers and to the desire for landownership which appears to be a stronger passion in new communities, where the soil is almost the only visible property, than in places where an old society has created many other forms of wealth. The western farmer who has homesteaded a quarter section of 190 acres can secure an additional quarter section by planting and caring for the growth of ten acres of trees. If he selects his homestead tract upon an unoccupied section he can get 320 acres in a body, and if this is not feasible he can usually find a chance for a "timber entry" within a short distance of his home and thus obtain a second farm to give to his sons or to sell when the denser settlement of the region has made it worth a good price. Nor are the benefits of the tree culture laws limited to actual settlers. Many claims are taken up purely for speculative purposes by non-residents. Considerable areas of land are thus kept out of the hands of men who would homestead and cultivate them, but the object of securing the rearing of numerous patches of forest in regions naturally bare of trees is greatly advanced.

It is still to soon to tell whether or not any noticeable climatic changes will result from the creation of timber tracts now going on in southwestern Minnesota, Dakota, Nebraska and Kansas, but is not probable that great benefits may accrue to those regions. When the trees attain a fair size the new forests may prevent excessive droughts and destructive freshets, and break the force of high winds and tornadoes, as well as promote a supply of fuel and lumber for future generations. The timber-culture laws afford a striking example of how much can be done to improve natural conditions by wise legislation, and are a lesson to the advocates of the let-alone theory of government. Their successful working suggests the inquiry, if the United States can, by two simple statues, cause forests to spring up upon hundreds of thousands of bare acres in the new west, cannot the states do something by legislation to regulate and limit the destruction of timber in the older sections of the country?—*Lumberman's Gazette.*

THE WHITE SEA TRADE.

The wood trade of the northern regions of Russia, and particularly the basin of the White Sea and its affluents, is pronounced excessively slight in comparison with that of the native countries of Norway and Sweden. The radius of the forests of Vologda and Archangel has a superficial area of 197,100,000 acres, it is estimated. The wooded regions of Sweden cover an area of some 40,500,000 acres, and those of Norway 16,200,000 acres. Notwithstanding the fact that the figures show Russia to have considerably over twice the estimated radius of area, the wood exports of these countries differ to the extent that the two Russian Governments export 124,000,000 cubic feet, and Sweden and Norway export 1,200,000,000 cubic feet. Only a minor portion of this wood is exported abroad, the amount being:—From White Sea ports, 10,775,000 cubic feet; Swedish ports, 200,000,000 cubic feet; Norwegian, 82,891,000 cubic feet. The most striking fact in the Russian wood export trade is that the largest export comes from the less-wooded districts. The Governments of Vologda and Archangel possess but eleven sawmills, whereas in Sweden there are 1,350. The great mass of the Imperial forests of Russia are concentrated in the north and northeast, at the north of the Volga and Kama, and on the right bank of the Volga, in the Government of Limbirsk.—*Glasgow Herald.*

WOODEN PIPING 250 YEARS OLD.

Some recent excavations in Berkeley square, London, England, brought to light one of those curious relics of old London, which are every now and then being exposed in its streets. In the sixteenth century London was supplied with water from the Thames by means of wooden pipes invented by one Peter Morris, or Maurice, a Dutchman, who, in 1580, obtained a right from the corporation to erect machinery to supply what many housholders had been compelled to purchase, a tankard at a time, from water-bearers. Maurice's works were erected at Old London bridge, and his water pipes were hollowed out of the stems of trees, tightly fitted into each other, much after the manner of the common sewer pipe of to-day. Some wooden piping of the kind devised by this ingenious Dutchman has recently been dug up in Berkerley square, but it was probably part of the works of the New River Company, which so far adopted Maurice's plan that it originally supplied water through pipes formed of the stems of small elm trees, denuded of bark, drilled through the center, and cut to lengths of about 6 feet. Some 10 years ago a considerable length of this wooden piping was exhumed in Pall Mall.

WALLING (formerly known as Teeters), in White county, Tennessee, near the line of the extension of the Manchester and McMinnville railroad, is doing a lively lumber business. The lumber business commenced in White county about three years ago, and in that time about twelve million feet of walnut and three million feet of poplar have been sawed and shipped from the county. About one hundred wagons are now engaged in hauling lumber from the mills in the county to the railroad depot at Rock Island.

OIL FROM PINE.

Within the last few years an important industry has sprung up in the French department of Landes. It consists in the extraction and application of oils from pine. These oils are of two sorts, the heavy (pinoleum) obtained by distilling the resinous wood at a low temperature, and used for painting and wood preserving; and the light oil for illumination, got by distilling in special apparatus, and purified with chemical agents. This light oil has the same chemical composition as oil of turpentine and distils at the same temperature (150 to 160 degrees), but has the advantage of not turning into resin. It contains neither pinic nor sylvic acid. As it does not emit vapour except at a high temperature, its use for lighting purposes is quite safe. Its luminous intensity is said to be greater than that of petroleum; it contains 88 per cent. of carbon, while petroleum has 82 per cent. Two similar burners showed the pine oil to have an advantage of 33 per cent. in luminous intensity; the consumption is also less. In the department of Landes, roots and old stumps of pine, formerly unutilized, are now made to yield considerable quantities of oil.

CHARCOAL.

We have before spoken of the process that has now passed beyond the stage of experiment, for making charcoal from wood and saving during the operation more in value of various chemical constituents than it costs to make the charcoal. The Chicago *Tribune* in speaking of it says that the Milwaukee, Lake Shore & Western Railway Company has sold about 5,000 acres of land near Birnamwood, Shawano county, Wisconsin, to a number of New York capitalists. The hardwood therein will be utilized in the manufacture of charcoal, acetic acid and alcohol, and a plant costing $25,000 is to be established at once for this purpose. The capitalists have secured the right of a French patent, which, by the use of retorts, is made to condense smoke from burning wood. By a peculiar process six gallons of 85 per cent. alcohol and 50 lbs. of acetite of lime, the base of acetic acid, are extracted from one cord of wood, leaving sixty bushels of charcoal. It is the intention to invest a large amount of money in addition to the first cost of the plant.

DRIVING DIFFICULTIES.

The *Northwestern Lumberman* says the owners of logs above the Gerrish dam, in the Tittabawassee and its branches, met at Saginaw, Mich., the other day, to settle upon some means of controlling the driving of the stock of logs now in the stream, which, for want of harmony among owners, was in a fair way to be left till late in the season. The meeting represented about 73,000,000 feet of logs, and about all the action taken was to draw up an agreement fixing the prices to be paid for driving from different points to the boom limits, which ranged from 12½ to 20 cents per thousand feet. This compact was signed by the representatives of 63,000,000 feet of logs, though it could not have any binding effect till 75,000,000 feet was represented, so the interested parties began scratching around to secure enough signatures to close the matter up, a skirmishing committee being appointed for that purpose.

Suddenly Seized.

Mr. Arthur Fisher, of the Toronto *Globe* observes: "On my last trip to the States, I caught a very bad cold from a severe wetting I received one night in the city of Philadelphia, which settled into a very bad case of rheumatism, and made me most miserable. I did not know what to do for it, and could not think for a long time, until I bethought me, that on previous visits to that side, I had always bought for Mr. Gay, of our paper, a couple of bottles of St. Jacobs Oil. I remembered also, fortunately, that the last two bottles had cured that gentleman of the rheumatism, and so I resolved to purchase St. Jacobs Oil for my own use. I went at once to a drug store and made the purchase; that very night I began applying the Oil, and in two weeks time I was as well as ever."

"And Fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopessa, Clergymen write us earnestly as to its wonderful effects.

HOW TO PRESERVE A SUGAR BUSH.

The *Cultivator and Country Gentleman* says: "An old farmer who is the owner of a fine 'sugar bush' that has been tapped many years in succession, but is yet in a good state of preservation, says that trees will be little injured by tapping if the holes are tightly plugged when the spiles are removed; that instead of finding a large decayed spot the next year surrounding the hole made by the bit, the wood will be sound and green clear up to the hole, and that the tree can be tapped within one-fourth of an inch of the old hole and a good flow of sap obtained. He uses pine for plugs, and to have them fit nicely he makes them from long sticks which have been driven through the right sized hole made in a piece of iron."

THERE is an elm in the south of England, sixty-one feet in circumference, whose trunk is hollow, having a door fastened by a lock and key. Festal parties have sometimes gathered in this tree, and it is said that a child was once born there. Another great elm has a winding staircase cut within it and a turret at the top which will accommodate twenty persons at once.

THE Ottawa *Citizen* says that a house on the new patent which Mr. Logan has taken out for the construction of portable houses for the North-West has been ordered for one of the road companies in Ottawa to be used as a toll-house. These houses are composed entirely of wood, and one of the peculiarities of their construction is that they are all pegged together, no bolts or nails being required for their erection.

A NOVEL method of taking lumber from the river has been put into practical operation by the Hannibal (Mo.) Transfer Company. The scheme is to run flat cars down to the river bank and out on the bed of the river for a distance of 200 feet, and cribs of lumber are then floated on top of the flat cars and drawn out by two engines upon the bank. The cribs are 32 feet long and 16 feet wide, and contain 10,000 feet of lumber. They are then removed to the yards of the company and taken apart, the boards being washed by hydrant water clear of the sediment dirt which attaches as they come down the river. The method will have the effect of making it possible to handle several times the amount of lumber shipped in former years.

BUT few people comparatively have any idea of the amount of timber used in the contruction of a single railroad. It yearly takes 200,000 acres of forest to supply cross-ties for the railroads of the United States. It takes 15,000,000 ties to supply the demand on their railroads, for which on an average the contractors get 35 cents a piece, making in the aggregate $5,250,000. In building a new road the contractors figure on 2,700 ties to the mile, while it takes 300 ties to the mile to keep a constructed road in repair. Contractors, of course, buy pieces of timberland as near to the proposed line of road as possible, paying for the timber an average of about $20 per acre, or giving the proprietor 10 cents for every tie got out. The average of a good piece of timber land is 200 ties to the acre and twelve ties to the tree.

BRIGHT'S DISEASE of the Kidneys, Diabetes and other diseases of the Kidneys and Liver, which you are being frightened about, Hop Bitters is the only thing that will surely and permanently prevent and cure. All other pretended cures only relieve for a time and then make many times worse.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

FAMILIAR as household words—the names of Esterbrook's celebrated steel pens—Falcon, Bank and Easy Writer. To be had from all the Booksellers, Stationers and Newsdealers.

THE WORST CASES of weakness, exhaustion, impotency, and all diseases and weaknesses of the generative organs can be cured by Mack's Magnetic Medicine. See advertisement in another column.

THE Rev. Charles E. Piper, formerly of Pittfield, N. H., but now of Wakefield, R. I., writes:—"I have used Baxter's Mandrake Bitters in my family for over two years, and as a result have not called a physician in the whole time. My wife had been an invalid for two years, but these bitters have cured her."

Simcoe House,
CORNER FRONT and SIMCOE STS.
TORONTO, ONT.
Best accommodation in the City. TERMS $1.50 and $1.00 per day, according to Location of Rooms.
The Most Convenient House to all Trains.
1L21 GREEN & SON, Proprietor.

The American Hotel,
BARRIE, ONT.
Collier Street, Adjoining the Market.
RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
Every accommodation for Commercial and LUMBERMEN.
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ROBERT SMALLWOOD
MANUFACTURER OF
The Patent Lever Feed Shingle, Box Board & Heading Machine
(Always takes First Prize.)
Rotary Saw Mills
IN FOUR SIZES, and other
MACHINERY for SAW and GRIST MILLS.
SEND FOR CIRCULAR.
CHARLOTTETOWN,
1L29 PRINCE EDWARD ISLAND

UNION FOUNDRY
Union Street, - - - Carleton,
Warerooms, Water Street,
ST. JOHN, N. B.
Allan Brothers
(Late of Harris & Allen)
MANUFACTURERS OF ALL KINDS OF
Steam Engines
AND
MILL MACHINERY.
Ships Windlasses, Iron Capstans
and Ships CASTINGS of all kinds.
Ships Cambooses & Cabin Stoves
COOKING AND HEATING
STOVES,
Shop, Office and Parlor Stoves, and Franklins
Agricultural Implements.
BRASS CASTINGS.
Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.
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Dealers in all kinds of
Lumber, Lath & Shingles,
Office, Union Loan Building,
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17 YEARS' EXPERIENCE.
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OFFICES, 32 KING STREET EAST,
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All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward. 1yL5

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(Made to Order and on hand.)
MILL PICKS DRESSED in a first-class style. Those shipped by rail will be returned promptly.
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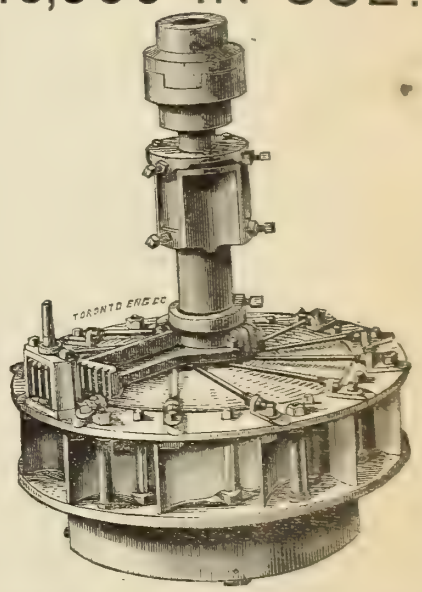

JOSEPH HALL Mfg. Co.,
(ESTABLISHED 1851.)
OSHAWA, ONTARIO.
MANUFACTURE THE CELEBRATED
JAMES LEFFEL'S
Double Turbine Water Wheel,
All Sizes of Stationary and Portable Engines and Boilers, Shafting, Pulleys, Hangers, Gearing, latest improved English and American Gangs.
The Stearn's Circular Saw Mills with Fractional Head Blocks and King of Dogs—this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill. Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Specialty.
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THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

Terms of Subscription:

One copy, one year, in advance	$2 00
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Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. JULY 15, 1882.

HILLIARD & DICKSON'S raft, one of those recently wrecked in St. Croix Bay, has been all saved, and the last piece of timber has arrived.

FRESNO County, Cal., has an apricot tree measuring 60 inches around the trunk three feet from the ground, which has about a ton of fruit.

THE new mill of the Ontonagon, Mich., Lumber Company is making a good early record. During a recent week it turned out 519,949 feet of lumber.

MR. WILSON, recently from St. Thomas, is erecting a large saw mill on lot 30, 8th con., of the township of Dawn, about three miles from Oil Springs. Mr. Wilson will go into business pretty extensively, and will find a market for the major portion of his production in Germany.

A LOGGING railroad has been opened on Hood's canal, at or near Olympia, W. T., by McLeary Bros., which has cost $10,000, and the locomotives $5,000 additional. The road taps a 4,000-acre tract of fine timber, from which 30,000 to 50,000 feet can be cut daily for 10 years, according to the estimates.

A RAFT ran aground on Hog Island, near the foot of the Cedar Rapids on Saturday, July 8th, and a portion of it broke to pieces, some of the raftsmen being precipitated into the river, and with difficulty rescued from drowning by their comrades. Mr. Jackson, the well known pilot, left Montreal on the train with a party of twenty Caughnawaga Indians to assist in getting it off.

THE Montreal *Gazette* says an unusually large amount of timber has arrived at Lachine this season, so much so that the booms were completely filled; and what timber remained outside of them was in great danger of being wrecked. This fact being represented to Mr. Conway, the efficient canal superintendent, he immediately provided the extra room required at a small cost to the Government, who will get large returns from the boom dues on the extra room. The thanks of the trade are due to Mr. Conway for his action in the matter.

THE Buffalo *Lumber World* says:—While the white pine districts of Michigan and the Northwest are being rapidly stripped of their timber, and many are confident that the child is already born who shall see these regions denuded of the last stick of pine, there are in the South millions of acres of yellow pine, which is esteemed by many quite as good as the white for most purposes, on which the woodman's axe has never yet been heard.

A QUEBEC correspondent says on July 7th:—The timber market has been dull up to the present time. The half of Mr. Peter McLaren's last year's lot of lumber, about 165,000 feet of white pine of about 57½ feet average, has been sold at 34c. per foot; also a dram containing about 35,000 feet of white pine, of 50 feet average, at 26c. per foot. A lot of red pine of about 38 feet average has been sold at 14 and 16c. per foot according to age.

THE *Lumberman's Gazette* says the season has now come when our people should beware of forest fires. Let those clearing land see to it that their fires cover no ground other than that intended. By these forest fires an incalculable injury may be done. First, the country will be lost in smoke and ashes; second, a great loss of valuable timber will be sustained; third, fences, farms, and maybe towns will be destroyed; fourth, the country through which the fires rage is temporarily blockaded, and fifth, its beauty is permanently lessened by the burning.

THE Hamilton correspondent of the *Globe* says:—Mr. F. W. Fearman, of this city, a short time ago sent a bag of soft maple seed to a friend in Manitoba, which has been received and planted. From this seed in a short time it is expected a small grove will spring up, which will not only be useful for wood in the Prairie Province, but will be ornamental and a protection against the wind. Mr. Fearman advised the planting of the seed in rows one inch deep in the soil. The tree from which the seed was taken is about twenty years old, and if cut down would make over a cord of good firewood.

THE township health officers in Edwards township, Ogemaw county, Mich., propose to hoist two dams in that township, and have given notice to that effect. As about 100,000,000 feet of logs depend upon these dams for water to carry them into boom limits, the owners of the same are naturally considerably exercised regarding the matter. The action of the township officers is said to be on the ground of health, but it is asserted that no one resides within a mile and a half of the dams. The log owners interested have taken legal advice to get an injunction to restrain the hoisting of the flood-gates.

THE *Timber Trades Journal*, of London, England, says:—The improving value of timber lands in Canada appears to be attracting the attention of capitalists in this country, and especially in Scotland. Two of the Scotch Canadian companies, viz., "The Quebec Timber Company," and the "British Canadian Lumber and Timber Company," are at present requiring increased capital, the former company for the purpose of purchasing about 315 square miles of valuable pine limits in the Ottawa district; and the latter are offering 5 per cent. debentures, secured on their valuable timber limits, stated to be worth £300,000.

THE Ottawa *Herald*, of July 8th, says:—By actual measurement this morning the Ottawa River is 5 feet 4 inches higher than ever before at this date, within the memory of the oldest raftsmen on these waters. Other years at this season the numerous sand bars between this and Greenville were impassable for boats, but up to the present pilots have experienced no trouble from these obstructions. The same unusual height of water is experienced on the Upper Ottawa, and its principal tributaries, so that in view of the large quantities of timber that have already been floated down, it is confidently expected that the drive this year will be complete. The only drawback may be the possible overstocking of the market at Quebec, which will have the effect of reducing prices.

THE *Timber Trades Journal* says it has frequently been discussed whether Quebec pine or best redwood boards are the more suitable for mould-making. The matter is not one which is capable of being decided "off-hand." On the score of quality alone, we are of opinion that pine must rank first. Pine mouldings are capable of receiving a higher finish, and take coatings of paint better than do redwood mouldings. Redwood mouldings must, on the other hand, be awarded the preference on the score of economy. The wood costs less than does pine, and the redwood being longer in its lengths, the waste necessitated by the use of the short lengths of pine is avoided.

FOREST FIRES.

OWING to the frequent showers and the cool weather with which we have been favoured thus far this season, our forests have suffered little or no damage by fire as yet, although we fear that unless more than the usual precautions are observed during the next two or three months, we shall yet have to record a considerable depletion of our timber reserves, by the fire fiend. With a little extra care, and at a moderate expense, however, we cannot help thinking that if "trees had votes" much might, and would be done to render the year 1882 a red letter one in this respect. The expense of putting forth some extra exertion to protect our forests during the few weeks of the dangerous season which now remain, certainly could not be great, and ought to be easily undertaken by those already in the employ of the Woodland Forest Departments of our Local Governments. That the people of Canada are destined to pay, at no distant day, for their carelessness in this respect, cannot be disputed by any one who has their eyes open to what is transpiring around them. The rapidity with which our home demand is developing, and the constantly increasing difficulty with which it can be supplied at what one is inclined to look upon as a reasonable figure, should make every one realize that it is of importance to them that our timber resources should be husbanded with the greatest care, and that a judicious expenditure of the public funds for such a purpose would be money well spent in more ways than one. Were it not that we are aware that the continual dropping of water will wear a hole in the hardest stone, we should feel disposed, in shear despair of anything to this end being done, to remain silent on the subject, but hoping that our little droppings, combined with that which falls from other sources, may yet have some effect and lead to some practical action on the part of those to whom these important interests are entrusted, we once more utter a word in behalf of the protection of our forest wealth, and of the important interests dependent thereon, from the annual depredations which it suffers by fire.

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to date:—

	1880.	1881.	1882.
Waney White Pine	720,526	469,252	484,464
White Pine	916,647	1,317,680	1,137,928
Red Pine	245,764	230,348	176,391
Oak	615,504	974,404	542,929
Elm	445,430	587,009	260,769
Ash	102,605	209,862	103,467
Basswood		3,069	120
Butternut	285	297	1,442
Tamarac	9,316	4,331	727
Birch and Maple	521,887	117,381	188,754
Masts	....	...	32 pcs
Spars	....	....	....
Std. Staves	0.6.0.2.6	59.6.25	126.8.0.20
W. I. Staves	123.9.1.16	116.2.2.20	225.4.0.19
Brl. Staves	....	....	1.7.3.29

ALEXANDER FRASER,
Deputy Supervisor.

Quebec, 7th July, 1882.

Sawdust Utilized.

The Chicago *Northwestern Lumberman* says: "Sawdust from Leathem & Smith's mill Sturgeon bay, Wis., supplies fuel to the steam barge Smith for her trips between that port and Chicago. The dust is taken from the circular to the bin, which is located at the edge of the wharf, and run into the hold of the craft by means of a spout, thus saving handling, etc. If this new venture proves successful, as there is no doubt, a great saving in time and expense is expected.

THE FRENCH TRADE.

BORDEAUX, June 12th.—The weather continues unsettled, to the great detriment of the wine harvest, but in some parts of the interior, and also in Spain, complaints are heard of the drought. Cargoes continue to come in gradually. Some arrivals of Dram flooring, and the Norwegian goods generally, have not met with satisfaction, the wood being considered to have too many knots, spoiling its appearance. It remains to be ascertained whether the brack for the French is the same as for the English market, which I have no doubt it is. There is another steamer chartered for wood to the Mediterranean, from St. John to Barcelona. The French steamer *Panama*, with wood goods from that place, has now arrived at St. Nazaire.

The *Gironde* of June 19th says:—We are expecting the arrivals of spruce shortly in the market. Several vessels are already *en route*, and a lot loading at St. John and Miramichi. These arrivals are indeed welcome, as there are scarcely any stacks of whitewood at our place. The news received from various Swedish and Finnish ports announces that several steamers and sailing vessels are on the way to our port, and others loading.

BUNDLING LATHS.

The *Timber Trades Journal* says:—Objections have been raised to the practise of binding bundles of foreign-made plasterer's laths by means of wire; string, or better still, unwoven rope, is considered to be far preferable by those who have experience of the trade. The wire is admitted to be temporarily stronger than either string or the unwoven rope, but the action of the weather, it is said, quickly corrodes the metal wire, and when this has once occurred the bundles nearly always burst. It will be readily enough understood that laths, immediately on their arrival on this side, are required to endure some rough handling, and without question it is most necessary that the bundles in nine cases out of ten become valueless. The laths get strewed about, broken, uncared for, and lost, for the importer is rarely able, unless he be actually present, to prevail upon his men to break off at their work for the purpose of rebinding them. Most importers of laths will doubtless give evidence of this being the case.

CANADIAN FORESTRY.

Considering the immense importance of her timber resources to Canada, it is a matter of surprise that our forest literature is extremely meagre. We are glad to see in a pamphlet on our table, entitled "The Geographical Distribution of the Forest Trees of Canada," by Dr. Robert Bell, of the Dominion Geographical Survey, the first attempt to give a comprehensive and systematic account of the occurrence of the different species of trees in Canada. This work is extracted from Dr. Bell's report of the survey for 1880, and its publication in pamphlet form at a cheap figure will doubtless have the desired effect of creating a greater interest in Canadian forestry than has hitherto existed. The pamphlet is accompanied with a large and accurate map, on which are represented by different lines the northern limits of thirty of the most valuable species of trees which occur in this country. The pamphlet will be welcomed by all interested in the timber resources of Canada.—*Toronto World.*

BLACK WALNUT.

The following letter appears in the *Timber Trades Journal*, of London, England:—

SIR,—Some few weeks since there was an article on the American black walnut, stating that it could only be propagated by seed; could any correspondent mention where seeds can be purchased in this country (the local nurserymen know nothing of them), as the writer is desirous of planting a few as an experiment?

W. D.

IT is almost impossible for vessels entering Port Hope harbor to discharge a cargo, owing to the large quantity of timber that is daily arriving by the Midland Railway from Lindsay, there being an average of about 16,000 feet per day.

TRENT NAVIGATION.

NOTICE TO CONTRACTORS.

THE LETTING of the works for the FENELON FALLS, BUCKHORN and BURLEIGH CANALS advertised to take place on the fifth of July next, is unavoidably postponed to the following dates :—

Tenders will be received until WEDNESDAY, THE SECOND DAY OF AUGUST NEXT.

Plans, specifications, &c., will be ready for examination (at the places previously mentioned) on SATURDAY, THE FIFTEENTH DAY OF JULY NEXT.

By order,
A. P. BRADLEY,
Secretary.

Dept. of Railways and Canals, Ottawa, 20th June, 1882. d150-1aw-2L13

NOTICE.

TO WHOM IT MAY CONCERN :

Notice is hereby given that the authority of M. W. FORWARD as agent at Oswego for ROSS & CO., of Quebec, is revoked, and his authority as such has ceased. By their Attorney,

SAMUEL P. WIGG.

Dated June 27, 1882. 1w27-1L14

D. S. BRIGGS,

9 TORONTO STREET, TORONTO.

WHOLESALE DEALER IN

Clear, Pickings, Common and Hardwood Lumber, Lath, Shingles, &c.

BILL STUFF CUT TO ORDER. 1Ltf

A. L. UNDERWOOD

WHOLESALE DEALER IN

White Pine, Basswood & Hardwood,

82 King Street East,

TORONTO, ONT. 1Ltf

S. S. MUTTON & Co.,

Wholesale Lumber Dealers

TORONTO.

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.

☞P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 1Ltf

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Shingles, Doors, Sash, Flooring, &c.,

WANTED,

STATE QUANTITIES AND PRICE TO

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Head Office, 514 Maine Street, **Winnipeg, Man.** L11

CENTRAL IRON WORKS.

Law, McLean & Brayshaw

Simcoe Street,

PETERBOROUGH.

CASTINGS of every description in Brass and Iron.

All sorts of MACHINERY for Saw and Grist Mills.

STEAM FEED for Circular Saws.

Also Saw Gummers, Cutters, Double Upset Swages, and all Saw Tools.

Send for Price List. L4

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F. GROSS,

Manufacturer of SURGICAL and ORTHOPŒDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description. 1L14

688 and 690 Craig Street, Montreal.

ESTABLISHED 1874.

THOS. GRAHAM

Manufacturer of Every Description of

FILES and RASPS

HAND CUT FILES made from the Best Refined English Cast Steel and *Warranted Equal* in every respect to the best English *brands*.

NEW FILES neatly put up in labelled boxes for the trade ; to whom *bottom figures* will be quoted.

Old and Worn-out Files *re-ground* and *re-cut* by hand, and made equal to the New File for use, at prices that will effect a great saving to all consumers of Files

N.B.—Every File Guaranteed. Price List on application, and a Sample Order Solicited.

Factory & Office :—Sherbrooke St.,

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Lumber and Commission Agent.

ORDERS FOR DIMENSIONS AND ALL OTHER KINDS AND GRADES OF

American Lumber

PROMPTLY ATTENDED TO.

Timber Limits and the Square Timber Trade a Specialty.

Office, Wellington Street, OTTAWA. 1Ltf

IRWIN & PHILP

Commission Lumber Dealers,

FORWARDERS,

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PORT HOPE. 1Ltf

PORTLAND FOUNDRY.

JOSEPH McAFEE,

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Warehouse, Main St., St. John, N.B.

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MANUFACTURER OF

Cooking, Ship, Parlor & Office Stoves

MILL CASTINGS

Ship Windlasses, Capstans, and Ship Castings of all kinds,

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Power Capstans, Patent Ship Pumps

With Copper Chambers. 1L15

Lead Scuppers & Water Closets & all goods in my line for Ships' use.

Work done to Order with Quick Despatch.

Drake Brothers' Box Mill,

Provost Street Extension, New Glasgow, Pictou County, N. S.

SPRUCE, PINE AND HEMLOCK SHINGLES

F. H. DRAKE. 1L17 N. H. DRAKE.

WILLIAM CAMPBELL

(Late CAMPBELL & FOWLER.)

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Edge Tools, Axles, Springs,

&C, OF EVERY DESCRIPTION.

Robertson Place, Smythe Street - ST. JOHN, N.B.

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ESTABLISHED 1852

MANUFACTURERS OF

STEAM BOILERS.

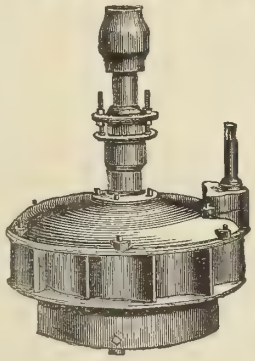
NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTIN & Co.

Esplanade, Foot of Frederick Street, TORONTO. 1L1y

FOR THE BEST

TURBINE WATER WHEELS



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Mill Machinery,

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PAXTON, TATE & Co.

Port Perry, Ont.

Send for Illustrated Catalogue. 4L12

SAW MILLS!

Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,

ST. THOMAS, ONTARIO.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills. L7tf

PROPER TIME TO CUT TIMBER.

A correspondent of the *Country Gentleman*, writing to that paper, says:—When to cut timber, especially hickory, is a question that has frequently been asked, and will continue to be as long as there is timber to cut. That there are seasons of the year when timber intended for use ought not to be cut, is very manifest to my mind from personal observation and experience of others. A few years ago I cut a number of white oak trees, and made them into rails in December. They were put into a fence on high, open ground, where they had the full benefit of air and sunshine. At this time there is not a single sound rail in the lot, and a great majority of them are entirely rotted, and others put in their place. I have had rails made at nearly all other seasons of the year, and have never had them rot as these did. I have peeled a great deal of chestnut and oak timber for tan-bark, and made most of the trunks into rails. I have noticed that some of these rails have lasted better than others, which causes some to think that there is something as to the time they are cut, and I am led to believe that timber cut in the light of the moon will last better when exposed to the weather than that cut when the moon is on the decline.

I have also noticed that from some oak rails made during the latter part of the winter from green timber and put into the fence, the bark will drop off in a year or two, while on others it will remain tight for years. I have moved fences that were built for 30 years, the bark on many of the rails was sticking fast. Hickory timber cut in the light of the moon in February will never become powder posted or worm eaten, no matter whether the bark is taken off or not, while that cut in the dark of the moon will be worm eaten and posted; of this I am satisfied beyond a reasonable doubt. I had an uncle who engaged to make a lot of ramrods for a gunsmith. Without taking thought he cut the timber during the dark of the moon in February, shaved the rods out and put them up in the garret to dry. For some cause or other he left them there over the summer. The next winter, when he went to examine them, they were literally eaten up. To look at them a person would suppose they were sound, but take them in hand and break them, they were nothing but a shell. I examined them myself, and know whereof I affirm.

A few years ago I engaged to furnish a wagon-maker a lot of hickory for wagon-axles, and cut all of the trees in the light of the moon except one. I hauled the tops and limbs of the trees off the ground for wood. That which belonged to the single tree I piled by itself, and I never moved it. During the following summer it was completely honey-combed, and in a very few years had rotted entirely away. I have also cut hickory in June and peeled it, which was never touched by worms. I can find some hickory rails on an adjoining farm that were made over 60 years ago, but know nothing about what time of the year they were made. Timber girdled in the light of the moon in June will stand for years and season and dry out, while at other times they rot and tumble down in a very few years.

Commenting on the above, the *Blacksmith and Wheelwright* says:—We agree with this writer that there is a proper as well as an improper season for cutting timber. We know from experience that two pieces of timber of the same kind, growing with the same exposure, and as nearly alike, in all particulars, as it is possible for two things to be alike, but cut at different times, will behave very unlike. One will remain sound for a long time, while the other will manifest some of the symptoms described by the writer of the above. We have never thought of going to the moon, however, for an explanation of the difficulty. We know the moon is accused of a great many offences; that it has in special charge the tides and other terrestrial phenomena, but we are disposed to defend it in this matter of the durability of timber. We believe the reason is to be found nearer at home, and that if investigators will study the habits of certain insects which prey upon timber, the condition of the timber itself with respect to its sap at the time it was cut, and the character of the soil upon which it grows, they will be much more likely to solve the question than by turning to the moon. This problem is one which has not been sufficiently studied. There is not enough information on the subject. The prevailing ignorance makes it possible for a writer to attribute all the phenomena observed to the occult influence of the moon, and in so doing to appear plausible. This question of the proper season for felling timber is one to which experienced, practical men can well devote attention.

SAGINAW SAW MILL IN AUSTRIA.

Wickes Brothers, of Saginaw, Mich., manufacturers of saw mill machinery, are about shipping a complete mill outfit to Stettin, Germany, from whence it is to be conveyed into the heart of an immense pine forest in northern Austria. This is the first complete American saw mill ever sent to that section of Europe. It was purchased by Count Chambour, a French nobleman, who is largely engaged in lumber manufacture, owning several mills and large tracts of valuable pine in northern Austria. Mr. H. D. Wickes effected the sale while travelling in Europe last March. The machinery to be shipped, including an engine, will weigh about 40 tons, and will make an entire train load for the small cars that are employed in Germany. The mill outfit will include a 38-inch patent gang, a full complement of all auxiliary saws, all the shaftings, belting, pulleys, saw-gummers, filers, and everything down to files. Everything will be American, except the boilers for the engine. It is thought that the transportation expenses will add 50 per cent. to the cost of the outfit laid down in the pine woods of Austria. But it will pay where it is to be put up, inasmuch as the mills now in use are of the kind that have saws that go up one day and come down the next, or words to that effect.—*Northwestern Lumberman.*

DUTY ON A HARBOR CRIB.

Our readers will remember that Messrs. Rathbun & Co., recently had a monster harbor crib built in Deseronto and towed across the lake and put into position at Oswego, where their extensive docks are. They are horrified now by a heavy duty being put upon their importation. The Hamilton *Spectator* says that the Treasury decision is as follows, sent to the Collector of Customs at Oswego: "Sir,—The department is in receipt of your letter of the 19th inst. reporting upon the appeal of E. W. Rathbun & Co. from your decision assessing duty at the rate of thirty-five per cent. ad valorem on a certain wooden crib imported into your port from Canada, which they claim to be dutiable at the rate of 20 per cent. ad valorem. It appears that the crib in question is a large wooden receptacle for stone, which is intended to be sunk and used in building a pier in the harbor at your port. It is made of 'flatted' logs, timber, and planking fastened together with iron bolts and wooden pins, and in this condition was towed into your harbor. Such being the case, the article is clearly a manufacture of wood, which is dutiable at the rate of thirty-five per cent. ad valorem.—*Kingston News.*

TRANSPORTING LOGS.

The *Lumberman's Gazette* says:—"We have before alluded to the possibility of transporting logs from the Georgian Bay and other points to supply the mills on the Saginaw river with stock, after the same shall have been exhausted hereabouts. We have always had faith in the feasibility of the proposition, and expressed our belief that the ingenuity of man would overcome the difficulities presented, when the necessity should arise. The possibility of towing long rafts of logs any considerable distance has been found hazardous business as at present conducted, although practical lumbermen have expressed implicit faith in the possibility of constructing cribs so as to insure practical safety in transporting logs by this method. A new plan, however, has lately sprung into prominence, which may possibly be extended and improved upon, and thereby overcome the obstacles which have hitherto seemed so insurmountable. The new plan is nothing more or less than the transportation of logs in peculiarly constructed scows. The great objection to this plan has hitherto been embraced in the difficulty and expense of loading and unloading the logs. This has been partially if not wholly overcome by a device now being utilized in some of the Wisconsin districts. The *Green Bay Advocate* in a late issue says:—"The new log lifting and carrying device of Wm. Baptist & Sons proves a success and is now in practical use. It consists of engine, boiler and hoisting apparatus on a scow. The hoisting concern picks up a log from the water or shore and deposits it in the scow in one minute. The trouble experienced thus far is in letting go of the log after it is on the scow. The clamp is similar to ice tongs, and when a log is lying with others it is hard to unclasp it. This, however is a trifling defect, which will be easily overcome. It proves much safer and more expeditious to bring logs in a scow than to tow them in a raft. The difficulty alluded to is of such trifling magnitude that it is unworthy of consideration in this connection. If the scheme of log transportation, as above, proves practicable on a small scale, it will undoubtedly be enlarged and improved upon, and thereby settle the long discussed problem of the future log supply for the mills on the Saginaw river in which so many millions of dollars are invested, and thus obviate removal or demolition.

KENTUCKY TIMBER.

A correspondent of the *Northwestern Lumberman* from Southern Kentucky complains because so much of the timber is shipped away to be consumed in manufacture, whereas the woods might as well be made up into commodities at home. At many of the railroad points some of the most magnificient walnut is seen, some of the logs measuring over four feet at the butt. It is shipped to Cincinnati, Ohio, and other northern furniture-making markets. The correspondent says:—"It seems a little strange that outside cities clamp down upon and utilize our state products, convert them into furniture, and realize vast profits, while our citizens stand idly by, dreaming, with listless gaze, at the absorption of our wealth. Walnut trees are bought standing in the forest, and the title conveyed away as real estate, to be gathered in as they are wanted. Almost every respectable tree in these rich valleys has been sold, leaving but a small balance for future dealers. Even the stump and roots are sold and used for veneering purposes, affording the most beautiful specimens of ornamental and decorative lumber. Not only does this section abound in valuable walnut, but in oak, ash, hickory and other fine timber."

An Iron Tree.

The iron palmetto at Columbia, S. C., is the greatest work of art in the State House yard. This is a casting wholly of iron, commemorating the death of many of Carolina's slain, whose names are found in raised letters on brass tablets at the base. The success of this casting consists in its perfect imitation of living palmetto—the favorite tree of South Carolina. We had heard of this statute in other places, but had never been able to believe the stories of the flexible leaves bending in the breeze, supposing this phenomenon an optical illusion, but such is really the case. The long thin leaves of iron, life-like even to the hair like fibres of the twigs and branches, wave tremulously in every zephyr, and the whole tree, painted artistically, has so close a resemblance to the real tree as to deceive the acutest observer at the distance of five rods.

Scorched Pine.

The losers of timber by the late fire in the Menominee, Mich., region were as follows:—The Ludington, Wells & Van Schaick Company, 7,000,000; the H. Whitbeck Company, 15,000,000, and the N. Ludington Company, 8,000,000 feet. The fire was in a heavily timbered district near the Brule, and as much as possible will have to be logged during the coming winter in order to save the burned trees. Fires have also run through the great wind-fall that resulted from the tornado last year, and logging on this tract will go forward all summer. the Kirby-Carpenter Company is putting in several millions of feet, while the Ludington, Wells & Van Schaick Company will cut and skid 10,000,000. It is thought that if early driving is begun on the upper Pike there will be little difficulty in running the logs down to the mills.—*Northwestern Lumberman.*

TREE PLANTATIONS.

Mr. B. F. Peck, of Bethany, N. Y., affords an example of what can be done in forest culture. He began a plantation of trees on two fields six and eight years ago. He now has ten acres of trees on rather poor soil, which consists of a clay loam resting on shelf-rock near the surface. He grew European larches and Scotch pines. At two years from the seed these young larch and pine trees were transplanted to places where they are to remain, four feet apart each way, an acre thus containing 2,640. Those that have been set six years are now 10 or 12 feet high, vigorous in growth and branching so extensively as to make it difficult for one to pass through the woods. These are from two to three inches in diameter at the ground. Those set eight years ago are from 18 to 24 feet high, and from four to six inches through. The pines are planted out 16 feet each way. In a year or two Mr. Peck will begin to thin out the larches, using them for poles and small fence posts. The land is thought to pay as well in these trees as if planted to ordinary farm crops, while the advantages they afford in protection to other crops and to the farm buildings is inestimable. Mr. Peck believes if 20 per cent. of our older and rough cleared land was planted to forest trees, it would render the remaining 80 per cent. more productive and valuable than the whole now is.

FORESTS RUINED BY WATER.

THE Chicago *Northwestern Lumberman* says the proposition is advanced that water rather than fire is the most destructive element in obliterating our forests. As an instance it is stated that in a new valley among the mountains a beaver dam obstructed the flow of a stream and made a large swamp of a meadow, which was surrounded by a dense growth of pine and hemlock. When the same creek was again dammed back by coal dirt it ruined quite a large area heavily timbered, and the same thing has occurred on a large number of streams. It has been found that where the fires destroy our forests we soon have a new growth of a different species of trees, but none where water destroys them. An investigator following this theory inquires if the treeless plains may not be accounted for upon this basis, which opens a question of cosmography which would require the deepest consideration and the most careful research to determine, if, indeed, it could be satisfactorily settled.

Pine Pipe.

At Lycoming, Pa., a factory has been established by Bower & Wyckoff for the manufacture of wooden pipe, to be used in tanneries, in mines and by farmers. Two buildings are occupied, one as a factory and another for the storage of manufactured stock. The pipe is made of white pine, and is of four inch bore. The sections are eight feet in length, and of all thicknesses, as may be required. The small pipe used by the farmers is rendered durable and preserved from decay through being coated with asphaltum and rolled in sawdust. The factory averages from 1,200 to 1,800 feet of piping per day.

$200.00 Reward!

Will be paid for the detection and conviction of any person selling or dealing in any bogus, counterfeit or imitation Hop Bitters, especially Bitters or preparations with the word Hop or Hops in their name or connected therewith, that is entended to mislead and cheat the public, or for any preparation put in any form, pretending to be the same as Hop Bitters. The genuine have a cluster of Green Hops (notice this) printed on the white label, and are the purest and best medicine on earth, for Kidney, Liver and Nervous Diseases. Beware of all others, and of all pretended formulas or recipes of Hop Bitterf published in papers or for sales as they are frauds and swindles. Whoever deals in any but the genuine will be prosecuted. Hop Bitters Mfg. Co., Rochester, N. Y.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

Chips.

DRIVES to the extent of 100,000,000 feet have been safely floated in Aroostook county, Me.

SOME malicious person cut the boom at Chas. Mears' sorting ground, Lincoln lake, Mich., and let 3,000,000 feet of logs go their wayward way.

THE Lindsay *Post* says a large quantity of the finest hardwood ever shipped from Lindsay is being delivered at the Midland yard near the river.

LUMBERMEN are becoming afraid that the water in the Ottawa will fall and that they will be unable to bring their timber to market this season.

THE *Lake Superior News*, of Duluth, says :—Quite a number of Michigan lumbermen are in the city looking around with the intention of locating if they see a good opening.

THE Cheboygan Lumber Company, of Cheboygan, Mich., recently received a raft of 1,000,000 feet of logs from Waiskai bay, Lake Superior, the first raft to pass through St. Mary's river.

THE Montreal correspondent of the *Canadian Manufacturer*, writing on June 28th, says :—Several car loads of white pine have been shipped to Manitoba during the week, costing $20 to $25 per M. feet.

AN adobe building at San Antonio, Texas, 150 years old, has been torn down. It is an old relic, and built in 1730 by settlers from the Canary Islands. Some of the cedar timbers were still good and sound.

IT is thought that over 50,000,000 feet of logs will be sawed in Minneapolis during the month of June, which will make it the banner month in the history of milling in that city. Very few of the mills are running at night.

A GREAT linden tree in Wurtemburg covered four hundred feet with its branches, which were supported by numerous columns, set by kings and others of high degree. A linden at Zurich forms a bower capable of holding five hundred persons.

WALNUT has become scarce enough and dear enough in Canada to suit almost anybody's ideas; but England can beat us a trifle in walnut expensiveness. Two walnut trees blew down in England recently, and the timber was sold for over $500.

ENGLAND imports some 10,000 tons of cork per annum, and the quantity is yearly increasing, notwithstanding the introduction of many stoppers and substitutes for corks, such as plugs of wood, whose fibres have been specially softened for the purpose, india-rubber, and other materials.

THE Milwaukee *Exchange* says :—There appears no longer to be any use in publishing rates of freight on lumber and coarse stuffs, such as wood, ties, &c. Vesselmen take anything they can get, and express themselves satisfied whenever they succeed in making a trip that pays expenses.

THE people of Kansas, under the forestry laws of the state, have planted 93,000 acres in trees, the cottonwood being most abundant, and growing most rapidly. Some 6,000 acres have been planted in black walnut, which it is expected will give handsome returns in eight or nine years.

PROBABLY the longest poleroad for logging in the state has been built in Midland county, Mich. It is eight and one-half miles long. Rockwell, Stokes & Co. are building a saw and shingle mill on this road and will haul all their product over it, four miles, to the Flint & Pere Marquette road. It will be a circular mill with two Hall machines for cutting shingles.

THE Linden, or Lime-tree, is a rapid growing tree, and often attains a great size. One in Norfolk is 90 feet high and 48 feet in circumference. Another at Moor Park, England, is 120 feet high, 23 feet in circumference at the ground, while its crown is 122 feet in diameter. Another in Kent covers a quarter of an acre of ground The lower branches of the last named tree have grown out to a great length until they drooped to the ground by their own weight, when they took root, sending out young trees. These in turn put forth branches which again took root, thus forming a second circle of trees.

THE Detroit *Marine News* says a steamer last week carried out 15 car loads of Michigan oak lumber, sawed to dimensions and billed through to Glasgow, to be used in constructing railway cars. It is believed that this order will be followed by others, because our northern oak possesses qualities much sought after by builders, but not found in British lumber, save that which commands a very high price.

AN Ottawa correspondent says that during the week ending July 1st, 551 cribs containing 15,790 pieces of timber passed through the Calumet slide, through Chats slide 952 cribs, through the Chaudiere slide 296 cribs, representing 6,764 pieces of white pine and 1,102 of red pine; through the Carillon slide, 112 cribs of square timber and 25 cribs of deals. Through the Gatineau boom slide there passed since the 26th of June 30,807 saw logs and 7,500 railway ties.

THE *Northwestern Lumberman* says the ever-increasing demand for shingles has been enhanced to a very important degree by the recent destruction of several large mills, which has cut off the supply to a serious extent. As a result most of the mills now running have no trouble to dispose of their product, and in many cases have large contracts ahead. Nerreter & Melcher, of Saginaw, Mich., have contracts ahead for cutting 3,000,000 shingles at the Crow Island mill.

THE ash frequently attains a considerable size. During the last century there was a hollow trunk of an ash tree, forty-two feet in circumference, at Donirey, Ireland. The village school was kept in this tree for a time. An ash in Lochaber churchyard, Scotland, is said to have been fifty-eight feet in circumference, measured five feet from the ground. At Carnock, Scotland, is one planted in 1598, which is 90 feet high and 19 feet in circumference, five feet from the ground.

THE Dexterville, Wis., woodenware factory is owned and operated by Geo. Hiles & Son. The stave department occupies a building 50×100 feet, and over 6,000 staves are manufactured daily. Fifteen acres are occupied as stave-piling ground, and 4,000,000 are now on hand. The syrup keg department is 40×70 feet, and there are six double dry houses. There is a pail and tub factory being erected, 65×100 feet, and two stories high. The total cost of the establishment was $70,000. The company has 40,000,000 feet of timber.

A FARMER in the township of Brantford, Ont., writes to the *Mail* as follows :—"I have maple trees I set out in 1842, one of which measures 57 inches in circumference three feet above the ground, and I have white oaks that are now between 60 and 70 years old, which measure over 9 feet in circumference. This being the case, we and the generations to follow need not dread a want of timber and wood for fuel if we only begin to plant trees about our farms, and if those of us who have bush lands, when taking out the large trees, will only be sure and leave the saplings."

A BOAT to be used for the purpose of a floating saw mill has been built on the river at Nashville, Tenn., by Messrs. Green & Wallace, for operation on the Upper Cumberland. The design of its projectors is to buy pine, cedar and walnut timber on the banks of the river, and to convert it into lumber for market on the vessel, at the rate of several thousand feet per day. Captain Green has announced it as his intention to buy all the logs from Walnut Bend down to the city. The vessel is a novel structure, 100 feet in length and 22 feet wide, and has a full saw mill equipment.

THE *Northwestern Lumberman* says the lumber manufacturing points are now exhibiting great activity, Muskegon, Saginaw and Minneapolis being particularly on the boom. At the latter point, taking the estimate of 392,000,000 feet of logs as the sawing supply for the mills for the season, they have more logs than they can cut, notwithstanding the briskness which characterizes operations. The amount of logs cut shows a large increase over those cut last year. The surveyor general has recently given some encouraging figures showing the increased operations, which are about double. Since every mill owner has prepared for an exceptional season, it is regarded that Minneapolis will see the biggest boom this season it has ever had.

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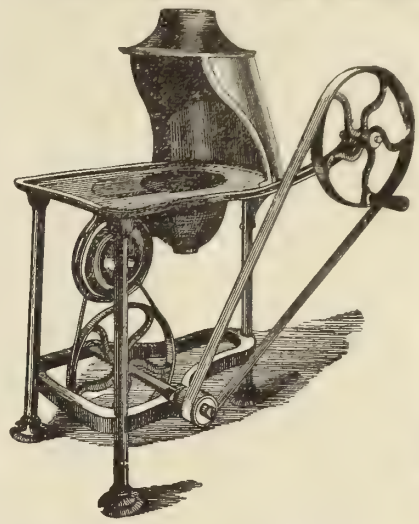

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My deafness helped a great deal—think another bottle will cure me.

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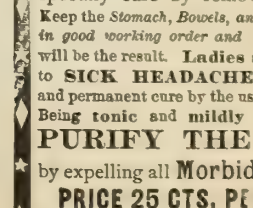

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will give immediate relief, and in a short time effect a permanent cure. After constipation follows **Biliousness, Dyspepsia, Indigestion, Diseases of the Kidneys, Torpid Liver, Rheumatism, Dizziness, Sick Headache, Loss of Appetite, Jaundice, Apoplexy, Palpitations, Eruptions and Skin Diseases, etc.,** all of which these Bitters will speedily cure by removing the *cause.* Keep the *Stomach, Bowels, and Digestive Organs in good working order and* **perfect health** will be the result. **Ladies** and others subject to **SICK HEADACHE** will find relief and permanent cure by the use of these Bitters. Being **tonic and mildly purgative** they **PURIFY THE BLOOD** by expelling all **Morbid Secretions.**

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MONTREAL.

Market Reports.

MONTREAL.

From our own Correspondent.

JULY 10th.—Since the date of our last report there has been quite a number of holidays and church festivals, which always interfere more or less with business. Lumber dealers here state that the amount of business done so far this year is quite equal to the same period last year, and a brisk and healthy demand is expected for some time to come. Stocks are full and a good deal constantly arriving. A large number of rafts have been passing here for Quebec with deals for the English market. Prices are well maintained and firm. We quote ex yard as follows :—

Pine, 1st quality, ₱ M	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M	14 00@15 00
Pine, 4th quality deals, ₱ M	11 00@12 00
Pine, mill culls, ₱ M	8 00@10 00
Spruce, ₱ M	10 00@11 00
Hemlock, ₱ M	9 00@11 00
Ash, run of long culls out, ₱ M	17 00@20 00
Bass, " " ₱ M	17 00@20 00
Oak, ₱ M	35 00@45 00
Birch, ₱ M	18 00@20 00
Hard Maple, ₱ M	18 00@25 00
Lath, ₱ M	1 30@ 1 40
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

FREIGHTS.

A number of vessels are in port, chartered some time ago for lumber to the river Platte. The rates to-day for large vessels is $13@$14, and for small vessels $15. Freight market easier.

SHIPMENTS.

The shipments from this port from the 23rd of June to date were as follows :—To Hartlepool, 874,426 feet of lumber and 25,545 deal ends ; to London, 277,200 feet of lumber and 31,003 pcs deal ends ; to St. John, Nfld., 3 mille W. I. staves and 273 pipe staves. The shipments to the River Plate since the opening of navigation to date are 4 vessels, carrying 1,696,347 feet, against 5 vessels, carrying 2,454,888 feet for the same period of 1881, showing a decrease of 758,541 feet.

CORDWOOD.

The corporation contract for maple was given out some days ago at $7.40 delivered, the corporation to pay the expense of loading. The Court House contract has not been given out yet. The general demand has been dull and not likely to be much better till September. Prices are firm as quoted on the wharf and railway station, but not much coming in. We quote :—

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	5 50
Short "	5 00
Tamarack	4 50@5 00

TORONTO.

From our own Correspondent.

JULY 10th.—Since last writing you the local trade has assumed a somewhat healthier tone ; still there is not nearly the same amount of trade being done as at the same period last year, but I have no doubt it is now being carried on more carefully and with a determination on the part of dealers to make as few bad debts as possible, and it is better for all interested that such should be the case, and will prevent a certain class of men who have hitherto lived and traded on the credulity of the lumberman and hardware dealer, from pursuing their dishonest practises any longer. There has been far more of this kind of trade done than has been agreeable to the retailer, and a comfortable living has been made by such men, at their expense, and the present unhealthy state of the building trade is due solely to this cause, in this city at least, and any man, or number of men, who take such steps as may effectually check such dishonest practices confers a benefit on the community at large, and hereafter we may expect to see a more reputable class of buildings erected, and the competent and honest builder receive a fair remuneration for his work, and the writer, for one, earnestly exclaims, so may it be.

Shipping over the docks is nearly at a standstill, very little lumber of the present season's cut being as yet fit to ship, and as a result of this state of affairs, freights have had a tumble. Plenty of vessels can now be had at $1 per M. to Oswego, but even at that figure vessel owners cannot find freights for their crafts, so they have to wait and hope for better times, indications of which are not far off, and I have no hesitation in predicting a busy fall trade. A bountiful harvest over the borders, and fair prospects for the same here, will all tend to stimulate the lumber trade, and all that will be required to ensure prosperity to this fair Dominion of our will be a careful administration of its affairs, combined with prudence and economy on the part of its people.

Prices at the yards remain the same, with no surplus of stock on hand.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅜ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M	2 50@3 00
XX sawn shingles	2 00
Sawn Lath	2 25

LONDON, ONT.

From our own Correspondent.

JULY 10th.—Since writing my last letter no new feature can be reported of this market of a favorable character. The demand for lumber of all or any grade is almost nil, and there is no accounting for the lull, for it is quite unusual at this season of the year, when building operations should be active.

There is not much building going forward in the city or suburbs, and house property does not seem to be a favorite investment in London just now. It is, however, just to the merchants to say that they retain their prices firmly, and they say that if any change takes place it must be upwards.

The quotations here for common stock is $16, and at the mills they are asking and firmly holding at $14. This, with freight and other incidentals, does not leave sufficient margin.

The universal impression among the lumber merchants here is that lumber will "jump up" to much higher figures than at present, and that, too, before long.

The block pavement contracts have been let to Mr. Cathro and his partners, these are from Richmond along Dundas street to Wellington, and from Dundas along Richmond to Fullerton street.

QUOTATIONS.

Mill cull boards and scantling	$12 00
Shipping cull boards, promiscuous widths	13 00
" " 10 and 12 in. stocks	13 50
Common boards, promiscuous widths	15 00
Scantling and joist, up to 16 ft	16 00
" " " 18 ft	16 50
" " " 20 ft	17 50
" " " 22 ft	18 50
" " " 24 ft	20 00
Common stocks	16 00
Common 2 in. plank	15 00
Cutting up plank and boards	20 00
Sound dressing stocks	19 00
Clear and picks	28 00
Three uppers, Am. inspection	35 00
½ inch dressed and matched flooring	22 00
¾ " " " "	22 00
1 " " " "	22 00
XXX sawn shingles, ₱ M	3 25
Lath per 1000 feet	5 00

OTTAWA.

From our own Correspondent.

JULY 10th.—No sales of the "season's cut" have been made, or large orders received by millowners hereabouts this year as yet. At this period last season almost every one of the lumbermen had their cut sold, and were extremely busy filling their orders, having very little stock for the general demand. This fact is considered somewhat remarkable. A number of American buyers are at present at the Russell House. It is probable that some large orders will be made known within a few days.

Quotations remain unchanged. Shipping by boat is unusually dull just now, the docks at the Chaudiere being lined with American boats awaiting loads. Several firms, among them J. R. Booth, are shipping by rail to Quebec large quantities of deals. In previous years these deals were altogether shipped by boat. Mr. Booth, although shipping by rail, is the owner of the largest fleet of boats among the Chaudiere lumber kings.

No change on the Quebec square timber market is reported. No sales have taken place as yet. Nearly all the rafts destined for the ancient capital have passed the slides at this place.

There is a diversity of opinion among limit owners on the Upper Ottawa as to the propriety or wisdom of rebuilding the Gordon Creek improvements which were destroyed by the high water a few weeks ago. The cost of these improvements was in the neighbourhood of $1,000,000, and this sum is almost a total loss. By the Gordon Creek route a considerable saving of distance is effected in the bringing down of logs and square timber from the Kippewa. The old route known as the Smith will now have to be resorted to, and will, it is thought, be generally used in future, as it is hardly probable that the Gordon Creek dams will be reconstructed.

A new steamer, called the *Argo*, has been placed on Lake Temiscamingue for towing purposes. She cost $20,000 and is owned by the Lake Temiscamingue Steamboat Co.

A petition has been in circulation and freely signed by the lumbermen to the Government praying the latter to do away with the charges on the Carillon slide. Their request will likely be granted, as the revenue derived does not amount to a great deal.

ST. JOHN, N. B.

From our own Correspondent.

JULY 7.—Since my last report the lumber market here has been considerably depressed, owing no doubt to the low prices ruling in Great Britain, the last sales of spruce deals in Liverpool by auction having averaged only about £7 5s. per standard, which would be sure to leave a loss at the late high prices. Freights are also a great deal firmer, on account of the slight advance in the United States, and steamers are accepting the current rates there sooner than come here for deals. I quote freights as follows :—

Liverpool	56s. 3d. c. d.
Bristol Channel	56s. 3d. c. d.
Ireland	57s. 6d. to 67s. 6d. c. d.

SHIPPING.

The following is a list of the vessels in port, with their tonnage, destinations and rates of freight :—

Asteriana, (s), 1,129, Liverpool, 52s. 6d. c. d.
Galligo, (s), 1,515, W. C. England, 52s. 6d. c. d.
Belle O'Brien, 1,847, Liverpool, 52s. 6d. c. d.
E. W. Gale, 298, Drogheda, 60s. c. d.
Kiamashatka, 513, Ireland.
Nellie T. Guest, 888, W. C. England, 53s. 9d. c. d.
Endrick, 324, Cork, 57s. 6d. c. d.
Belle, 480, Dublin or Dundalk, 60s. c, d.
Viator, 375, Port Rush, 58s. c. d.
Clarence, 1,032, Bristol Channel, 55s. c. d.
Arizona, (new), 1,100, Cardiff, 55s. c. d.
Aldytha, 231, Ballina, 64s. c. d.
Hawthorne, 620, Warrenpoint, 56s. 3d. c d.
Assyria, 728, Warrenpoint, 56s. 3d. c. d.
Lottie Stewart, 742, Unchartered.
Lepreaux, 769, Unchartered.

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881.			1882.		
Deals. M. S. ft.	*Pine. Tons.*	*Birch. Tons.*	*Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
87,803	25	1,793	99,238	359	3,890

VESSELS LOADING THIS DATE.

1880.		1881.		1882.	
Ships.	*Tons.*	*Ships.*	*Tons.*	*Ships.*	*Tons.*
23	22,044	36	28,897	16	12,591

OSWEGO, N.Y.

JULY 10th.—There is no change in quotations. The demand is very light.

Three uppers	$42 00@46 00
Pickings	32 00@36 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	11 00@14 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@40 00
1¼ inch	34 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1¼ inch mill run	14 00@20 00
" " " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 25@ 4 50
XXX, 18 inch, cedar	3 50@ 3 60
Lath	1 80@ 1 90

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ₱ M	$55 00@63 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 39@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in	00 26@00 32
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M	35 00@40 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@70 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 50
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 25

BOSTON.

JULY 8th.—The *Journal of Commerce* says trade is not active, but there is a fair, steady demand, and values keep along on a pretty steady basis. The outlook is uncertain, and there is little disposition to order very far ahead. Dry and select grades of almost all kinds of soft and hard woods are comparatively firm.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

CHICAGO.

JULY 8th.—The *Northwestern Lumberman* says :—The holiday fleet on the cargo market was much smaller than had been anticipated, the morning of July 4 bringing a fleet of but 17 vessels, while that of the following day was but 23, the heaviest of the week. Of the dozen vessels on the market July 6, all but one cargo of shingles had disappeared by noon. Asking any of the habitues of the cargo market the conditions as regards prices, one will almost invariably receive such responses as "good," "firm," "remarkably steady," etc., while the same query addressed to buyers will, according to the hopefulness of the one questioned, receive such answers as "remarkably firm," "going all to smash," and the like. The facts are that while taking all things into consideration, prices have been sustained in a remarkable manner, there has been a little letting down upon all grades of stock offered. Piece stuff, as the standard of the market, may still be quoted at $11, while sales have been made of Muskegon and White Lake stock at $10.50 and $10.75, and a fair quotation would be at those prices for lumber from those points, and $11 to $12.25 for Manistee and Ludington ordinary stock. A good proportion of long lengths would modify the figures by 25 to 50 cents in each case. No. 1 log run, selected, would bring as much as at any previous time, while log run not closely selected for culls should be quoted from 50 cents to $1 weaker. No. 2 short has sold from $11 to $13.50 for boards and strips, as to quality, coarse stock being dull and neglected. Shingles are decidedly weak and lower. Standards are selling all the way from $2.37½ to $2.50, according to the popularity of the brand, while *A* have sold for $2.50, and the most favorite brands at $2.75. Clears are held at $3.15, at which the make of one leading manufacturer has been contracted to August 20.

The falling off in volume of receipt for a couple of weeks past would indicate that manufacturers on the Michigan shore have adopted the policy of withholding shipments, and we learn that more piling at the mills than is customary has been undertaken. The absence of

large offerings during the holiday period was considered by the conservative element of the trade a mark of a wise policy, and while the influence of members of the bear element, in inaugurating a lower price list has so far failed of the expected results at the cargo market, the latest move may be more potent should large offerings continue. As it is, the market appears anomalous and a puzzle to the oldest dealers who have been in the habit of frequenting the dock.

CARGO QUOTATIONS.

Short dimension, green	$10 50@11 00
Dry	10 75@11 25
Long dimension	11 75@13 50
Boards and strips, No. 2 stock	11 25@14 00
No. 1 stock	16 00@20 00
No. 1 log run, culls out	17 00@21 00
Standard shingles	2 37½@ 2 50
A	2 50@ 2 75
Clear	3 15
Lath	2 25

Receipts and shipments of lumber and shingles for the week ending July 6, as reported by the Lumberman's Exchange :—

RECEIPTS.

	Lumber.	*Shingles.*
1882	64,965,000	18,575,000
1881	68,930,000	31,134,000

FROM JANUARY 1 TO JULY 6 INCLUSIVE.

RECEIPTS.

	Lumber.	*Shingles.*
1882	776,405,000	357,662,000
1881	646,145,000	285,054,000
Inc.	130,260,000	72,608,000

LAKE RECEIPTS TO JULY 5.

1882	643,086,000	332,524,000
1881	518,956,000	217,048,000
Increase	124,130,000	115,476,000

STOCK ON HAND JULY 1.

	1882.	1881.	1880.
Lumber	372,711,591	270,317,046	292,467,878
Shingles	167,598,300	91,607,700	130,315,000
Lath	21,902,726	20,658,679	31,195,310
Pickets	1,093,328	2,193,415	836,021
Cedar posts	238,823	77,042	80,708

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@48 00
Common	20 00@22 00
Culls	14 00@15 00

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@20 00
Culls	13 00@14 00

LONDON.

The *Timber Trades Journal*, of June 24th, says :—There was one transaction we ought to notice at the sale of Wednesday, at the Baltic, by Messrs. Simpson & Mason, because it determines the value in this market of Montreal best pine. The small parcel of 201 pieces (about five standards) of 12 ft. 3×12 to 18 in., sold without reserve, brought the very satisfactory price of £26 per Petersburg standard. We say satifactory because at no public sale has this price been reached in London for many months past, and when things are not very brisk we are glad to see that best pine is still appreciated in our market.

The arrival of forty wood-laden vessels, of which twenty-four were steamers, in the week ending the 21st, may be considered to have brought a very fair supply, as times go, to this market. Among them, however, we do not see a single cargo of flooring, and the stock of that commodity may be expected to diminish for the rest of the season instead of increasing.

The general dulness now noticeable at the docks is becoming almost a normal condition of affairs there. One day last week we believe there was actually not a single vessel discharging, meantime a lot of stuff is still being delivered, a state of things not so agreeable to the company, who like to see the piles well kept up. Sooner or later things will be greatly altered, and a rush of vessels might happen all together, making business at the quays as active as ever, causing porters to be requisitioned from all parts to aid in the task of keeping the quays clear, as ship after ship arrives. We have seen a dull time followed by a season of bustle such as described, that, looking at the placid scene the docks now present, is hard to realize. The ship-owners are asking some slight advance of freight, which the merchants will not yield to, and are in no hurry, while trade continues quiet, to transfer their purchases from the mills to this side, which causes the present stagnation in the freight market. The bulk of the sailing ships look to the outports for charters rather than to London, and steamers necessarily bring such a dose at a time that to charter one of these monsters is not such an offhand affair as might be supposed, though when trade is brisk 500 or 700 standards for that matter are a bagatelle to a London house.

LIVERPOOL.

The *Timber Trades Journal*, of June 24th, says :—We have again had a slow and dragging week of business, and with a languid market and continued pressure to sell, especially by shippers of pitch pine. Prices have been a shade weaker; the reduced rates, however, seem to stimulate the consumption, and there has consequently been a fair quantity of orders in the market, and the deliveries have been more prominent in quantity than has been the case recently. Of course much of this is attributable to the frequent and extensive auction sales which have been so rife of late, and, as they have all practically been without reserve, a considerable quantity of timber has been taken direct out of the new arrivals; which probably would not have been done to such a large extent had the trade been left to follow its natural course; at the same time, prices have now fallen so much from the figures most people were expecting and holding out for, that perhaps a spirit of speculation may have taken hold of the minds of many, and led them to buy now, when the market is depressed, rather than wait longer and run the chance of its rising before they can make their purchases.

On Friday, the 16th of June, Messrs. A. F. & D. Mackay offered one cargo of St. John, N.B., deals and birch timber, one cargo of Bridgwater, N.S., spruce deals, and one cargo of Margaret's Bay, N.S., together with sundry other parcels of goods in store.

A good company of buyers, composed of consumers and dealers from the country as well as the local trade, was in attendance, but in order to get through the various consignments reduced prices had to be accepted, as there was an evident disposition to meet the market. The St. John, N.B., spruce deals, of which there were only about 120 standards in the cargo, sold as follows :—

		£	s.	d.		£	s.	d.
Spruce deals, St. John, N.B.—								
16 to 26 ft.	3×11	7	12	6				
12 " 15 "	3×11	7	12	6				
9 " 11 "	3×11	7	5	0				
16 " 26 "	3×9	7	5	0				
12 " 15 "	3×9	7	2	6	to	7	5	0
9 " 11 "	3×9	7	0	0				
16 " 25 "	3×7	7	5	0				
12 " 15 "	3×7	6	17	6				
9 " 11 "	3×7	6	12	6				
9 " 21 "	2½×7	7	7	6				
9 " 21 "	3×12 to 16	7	2	6				
9 " 20 "	3×8 & 10	7	0	0				
	Deal ends	6	5	0				
Do. Bridgewater, N.B.—								
16 to 27 ft.	3×11	7	15	0				
12 " 15 "	3×11	7	12	6				
9 " 11 "	3×11	7	7	6				
16 " 28 "	3×9	7	7	6				
12 " 15 "	3×9	7	7	6				
9 " 11 "	3×9	7	5	0				
16 " 28 "	3×7	9	2	6				
12 " 15 "	3×7	7	0	0				
9 " 11 "	3×7	6	15	0				
9 " 27 "	2½×7	7	12	6	"	7	15	0
9 " 26 "	3×14 to 19	7	0	0				
9 " 26 "	3×13	7	7	6				
9 " 27 "	3×12	7	5	0				
9 to 26 ft.	3×10	7	10	0				
16 " 27 "	3×8	6	15	0	to	6	17	6
9 " 15 "	3×8	6	15	0				
9 " 26 "	4×12 to 17	8	17	6				
9 " 26 "	4×11	8	10	0	"	8	12	9
9 " 26 "	4×9	8	7	6				
9 " 25 "	4×6 to 10	8	10	0				
Deal ends	3 in.	6	5	0				
"	4 "	6	12	6				
Do. Margaret's Bay—								
9 to 28 ft.	3×11	7	7	6				
16 " 28 "	3×9	7	5	0				
12 " 15 "	3×9	7	2	6				
9 " 11 "	3×9	7	0	0				
16 " 28 "	3×7	6	15	0				
12 " 15 "	3×7	6	17	6				
9 " 11 "	3×7	6	2	6				
9 " 27 "	2½×7	7	5	0	"	7	10	0
9 " 27 "	3×8	6	17	6				
9 " 28 "	2½ & 3×8	7	2	6				
Scantling		6	2	6				
Boards		6	10	0	"	6	15	0
Deal ends		6	0	0				

Birch timber, St. John, N.B.—		
20½ in. deep	22¾d	per ft.
20 "	21d	"
19 & 19½ "	20d to 20½d	"
18 " 18½ "	18½d to 19½d	"
17 " 17½ "	17½d	"
16 " 16½ "	16½d to 17d	"
15 " 15½ "	15d to 16½d	"
14 " 14½ "	14½d to 14¾d	"
Under 14 "	14d	"
Maple	16d	"
Ash	21¾d	"

BRISTOL.

Messrs. King Bros. held their monthly timber sale on Wednesday, 21st June, at their yard, Canon's Marsh, Bristol. There was a fair attendence. Annexed are the prices realized :—

PINE DEALS.
(At per Petersburg standard.)

		£	s.	d.
Quebec 1st bright	16 to 14 ft. 3×11	22	5	0
" "	3×10 to 7 £20 5s. to	20	10	0
" 2nd	3×11 £15 15s. to	15	17	6
" "	3×11	14	15	0
" 3rd	3×11	10	0	0
" 1st dry	16 to 13 ft. 3×11	20	0	0
" "	12 ft. 3×11 £19 12s. 6d. to	19	15	0

AMERICAN WHITEWOOD.
(At per foot.)

Baltimore	42½×40¾ in.	2	3
New York	39×34¾ "	2	1

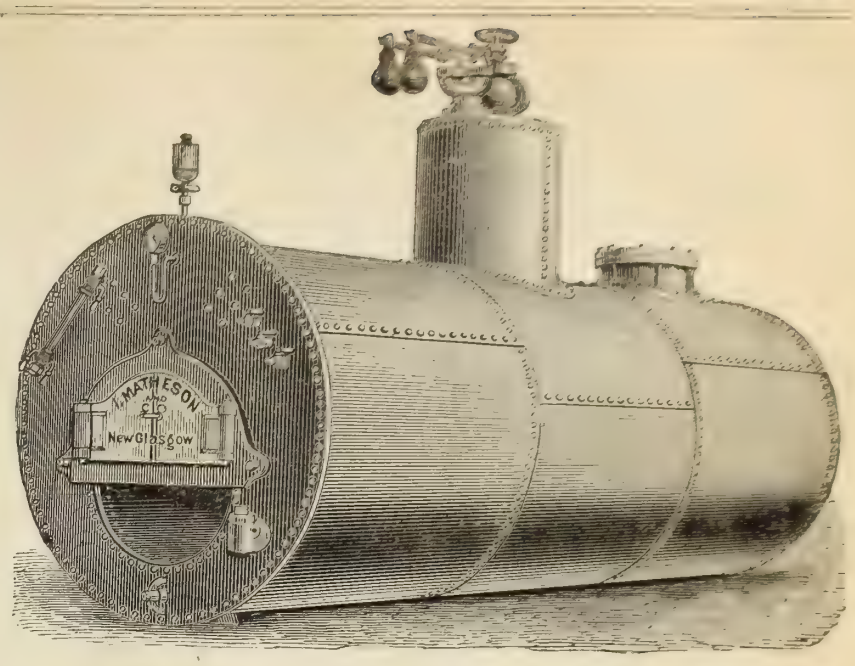
WAINSCOT OAK.
(At per foot.)

New York	16¾ to 9 in. deep	2	7

GLASGOW.

The *Timber Trades Journal*, of June 24th, says :—No auction sales to report have taken place here or at Greenock within the past week. Imports have been on a moderate scale, amounting in all to about 2,300 loads. The regular traders from Quebec had not, according to latest advices, cleared for Greenock with the usual supplies of log timber, and it is evident they are going to be several weeks later than last year, arrivals having begun before the end of June in 1881. Of Quebec deals, per steam liners, the import of the last four weeks (since the season commenced) amounts to over 80,000 pieces, a larger quantity than was imported the same time last year.

The arrivals of New Brunswick deals are on much the same level as last year so far, and the stock at present in first hands is small. The contrasted imports are as follows :—1882—196,821 pieces; tonnage employed in conveyance, 6,478; 1881—172,551 pieces; tonnage employed, 5,933.



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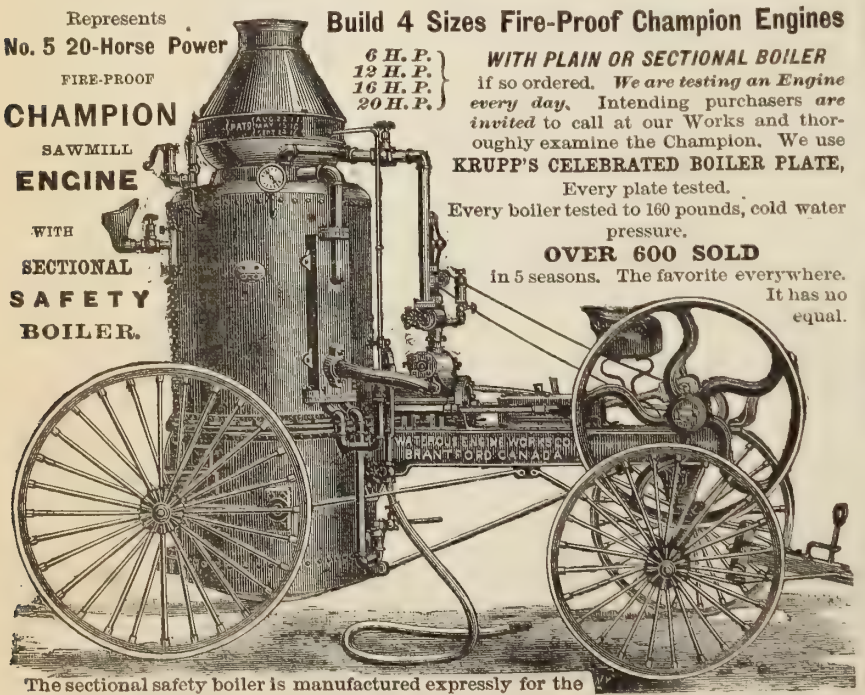

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WOOD TO WEAR.

One of the peculiar industries is that of manufacturing clog soles and wooden shoes. The timber is first cut into planks, and on the side of each plank a metal guage is laid, an operative then roughly outlining the size and number of soles which can be cut from it, the planks pass on to a band saw, where they are cut up into blocks with the required curvature for a sole, thence passing to the roughening machine which crudely shapes them. Another machine cuts the sides, another shapes the shanks, and a third round the heels, and the toes are shaped by a fourth. From these they go to a revolving cutter, which roughly hollows the upper side of the sole, and subsequently this hollowed surface is smoothed in another machine. The soles pass next through various finishing machines, the bottoms, sides, shanks, heels and toes being thus successfully rendered perfectly smooth by friction with swiftly revolving bands—the latter covered with a mixture containing ground glass and some other attritive materials—which scour them in the same way as if with sand or emery paper. Finally, a gripping machine bevels the edges, leaving a "grip" to which the leather uppers can be fastened. The sole of each wooden shoe, from the time that the log of wood is first cut into segments to the time when the edges are beveled by the gripping machine, passes through 15 distinct machines.—*Northwestern Lumberman.*

THE SAW MILLS.—The British Canadian Company's new mill at Hugel Point is now running. The lumber mills here are all hard at work. Cameron & McLeod's mill is engaged in cutting cedar. The British Canadian new mill and the large mill, formerly H. H. Cook's mill, Chew Bros., and Dollar's Wye mills, are all cutting pine lumber. The lumbermen report the logs all down and in safe water and a full supply for all the mills. This season's cut will far exceed any heretofore in Midland.

THE first saw-mill was erected in the island of Madeira in 1420; and the next at Breslau, in Austria, in 1432.

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Baltimore, Md., U. S. A.

WAR AMONG SQUATTERS.

The Fort Totten special report to the Grand Forks, Dakota, *Herald*: Considerable trouble and some fighting is going on over on the north side of the lake. There are several hundred squatters over there, and some it is claimed are holding more land than the law allows. The new settlers coming into the country try to squat on the land which the other parties claim and a fight ensues in which knives and revolvers are freely used. As yet no one has been killed, though one named Hance was struck with a club and badly hurt. A party of 20 is trying to hold a tract of fine timber of over 3,600 acres. Whenever any one attempts to squat on it they are driven off at the point of revolvers. They will not state where their stakes are, or where or how much they claim. They are thus able to cover a great deal more territory than the law allows. Trouble is anticipated, and the fort commandant threatens to interfere to prevent bloodshed.

Parties just in from Devil's lake corroborate the above statement, and give additional facts, which the *Herald* correspondent who is at the fort, would not care to divulge. It is rumored, though there is no proof of the fact, that Lieut. Creel of the fort has employed the 20 men above mentioned to hold nearly four thousand acres of timber until such time as it shall come into the market. The men, of course, will not state who is employing them. They are well drilled and have a code of signals by which they communicate with each other. When a squatter attempts to settle as stated, they gather to the number of ten or a dozen and tear down his shanty, driving him off by threats of killing. The leader of the gang is an ex-Mountana cowboy, who is slightly known in this section. About a week ago a poor man came to the fort with a story to the effect that his shanty had been torn to peices, and that he had been ordered to leave the country. He had a wife and several small childern, who were exposed all night without shelter.

The Stinging Tree.

Among the luxuriant and beautiful shrubs of Queensland is one known as the "stinging tree,' which is exceedingly dangerous, and often fatal to life. It grows from two or three inches to 10 or 15 feet in height, and emits a very disagreeable smell. It is also easily distinguished by the peculiar shape of its leaves." "Sometimes," says a traveler, "while shooting turkeys in the scrubs, I have entirely forgotten the stinging tree till warned of its close proximity by its smell, and have often found myself in a little forest of them. I was only once stung and that very lightly. Its effect was curious; it leaves no mark, but the pain is maddening; and for months afterwards the part when touched is tender in rainy weather, or when it gets wet in washing, etc. I have seen a man who treats an ordinary pain lightly, roll on the ground in agony after being stung, and I have known a horse so completely mad after getting into a grove of the trees that he rushed open-mouthed at every one who approached him, and had to be shot. Dogs, when stung, will rush about whining piteously, biting pieces from the affected part."

FROM a crevice in the stone front of the state library building at Albany, N.Y., a vigorous young elm, now five feet in height, has pushed its way into the world. A large elm, doubtless its mother, stands almost opposite the entrance to the library, and the offspring is as green and hardy as the parent. Nature evidently determined that such an ambitious sprout shall not perish, but in what manner she supplies it with sustenance it is impossible to say. The building is soon to be demolished, and then perhaps the mystery will be solved.

THE Lindsay *Post* says a large quantity of square timber is being loaded on the cars at the Midland Railway. It rather contradicts the theory that there are no sizeable timber trees in the country north of us to look at the sticks. In girth they are all on the large size, and in length a very fair average. It generally calls for two flat cars to each tier of timber. The hauling powers of the engines are severely tested under the immediate loads.

ROBERT W. LOWE,

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MEDICINE CHEST IN ITSELF
A PURELY VEGETABLE MEDICINE
For INTERNAL and EXTERNAL use.
THE OLDEST BEST & MOST WIDELY KNOWN FAMILY MEDICINE

Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

COBOURG, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &c., J. E. KENNEDY

Beware of Counterfeits and Imitations.

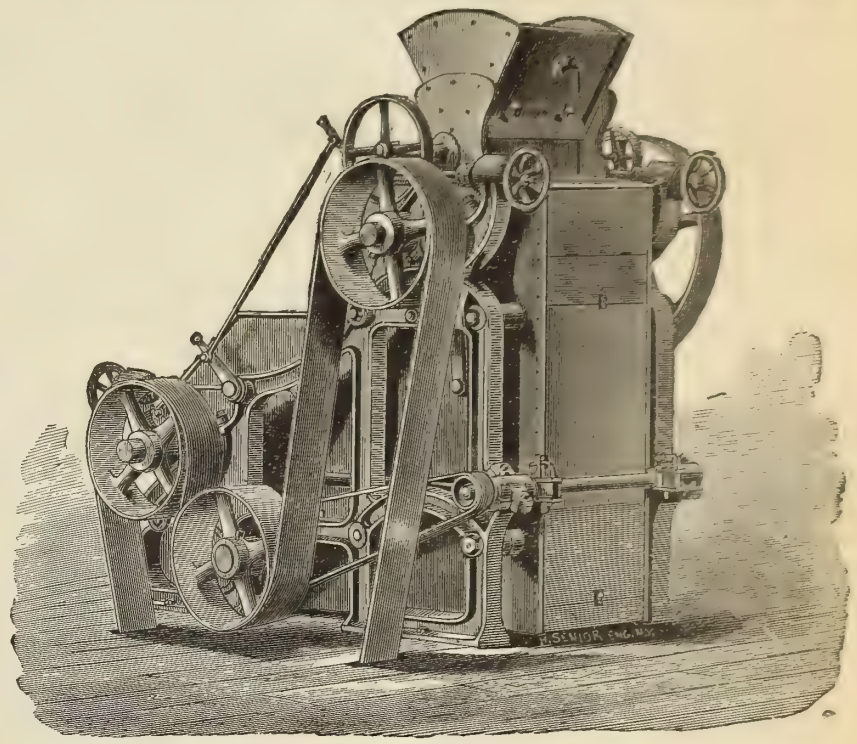
Price 20c., 25c., and 50c. per bottle.

THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

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BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel.
It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.
It is perfectly harmless to Iron, and emits a clear pure Steam.
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M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, ESQ., Peterborough.

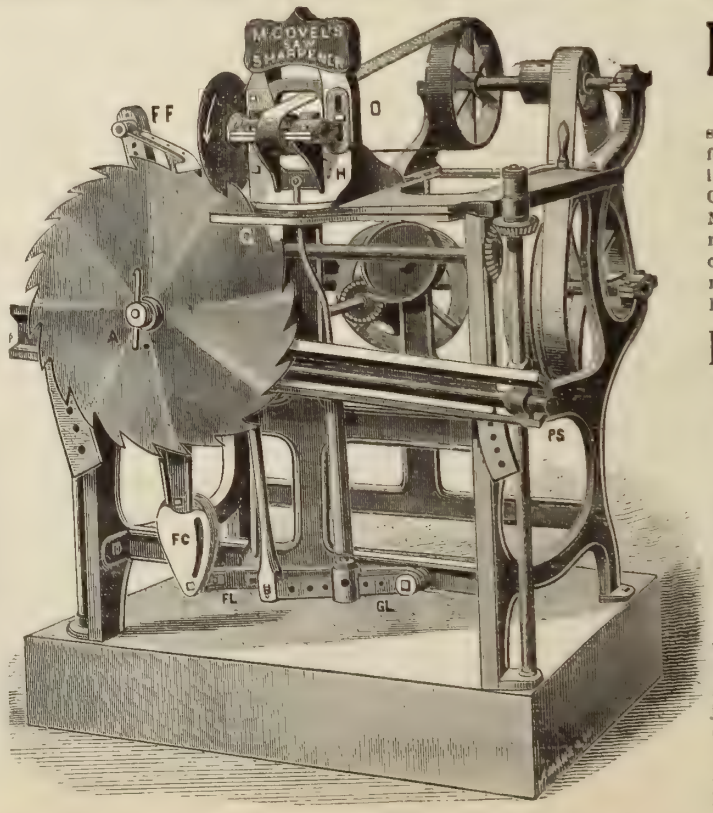
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the pinion feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly. Yours, &c.,
THOMPSON, SMITH & SON.



MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

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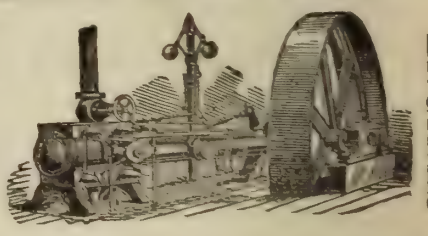
CORLISS ENGINES



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour. 1L17

WILLIAM HAMILTON,

PETERBOROUGH, ONT.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President.
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SAMUEL BRIGGS, Hamilton, Superintendent.

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EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH,
GALT.

Messrs. R. H. SMITH & CO.,
ST. CATHERINES.

JAMES ROBERTSON, ESQ.,
MONTREAL.

Messrs. JAMES ROBERSTON & CO.,
TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ,
PETERBOROUGH,
Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON,
DESERONTO,
Lumber Merchants.

1L1

EMERY WHEELS FOR SAW GUMMING!

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eigths of all in use are beveled.

The principal sizes are:

8x1/4, 8x3/8, 8x1/2 — 3/4 in. hole.
10x1/4, 10x3/8, 10x1/2, 10x5/8 — 3/4 in. hole.
12x1/4, 12x3/8, 12x1/2, 12x5/8, 12x3/4, 12x7/8 — Holes, 3/4, 7/8 and 1 inch.

Probably more wheels 12x3/8, 12x1/4 and 12x1/2 are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1 1/2. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality.* Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1y113

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THE CANADA LUMBERMAN

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SUBSCRIPTION $2.00 PER ANNUM

VOL. 2. PETERBOROUGH, ONT., AUGUST 1, 1882. NO. 15.

RESERVING THE STREAMS.

A letter by Mr. T. B. Pardee, the Ontario Commissioner of Crown Lands, has been published, in which appears the following paragraph :—

"As to the reservation contained in the patents giving the right to float timber, &c., down streams, I send you one of the patents in order that you may see for yourself what this reservation it. It gives all parties the right to use streams for the purpose of floating down all kinds of timber, and it will be seen that this provision is as much in the interest of the settler as that of the lumberman, because many settlers now (and the time will come when this will be much more the case) require to use these streams for the purpose of getting to market ties, poles, and other timber of a like kind, growing upon their lands. The reason that this clause has been inserted in the patents was on account of the disallowance by the Dominion Government of the Bill which provided for such passage of streams. Had it not been for this disallowance it would have been the statute law, and there would have been no necessity for inserting such a reservation in the patents. In fact, the Court of Appeal has held that this is the law of the land now, by virtue of an Act passed over 30 years ago. I have heard it stated since the election that our opponents have alleged that this reservation gives parties the right to enter upon the land and take timber for the purpose of making improvements upon streams. This you will see is not the case, and there is not the slightest foundation for the statement. Instead of this provision being against the interests of the settler it is entirely in his favour, because there are very few streams in the whole of Muskoka which some one individual could not absolutely control by making some trifling improvements upon them and prevent anybody using them but himself. If there is one thing more than another that is on the side of the people and against what might be called monoply, it is this reservation. Of course if the law, which we re-enacted last session, is not again disallowed, then this provision will disappear from the patents."

The following is a clause in the patents referred to above :—

"To have and to hold the said parcel or tract of land, hereby granted, conveyed and assured unto the said Heirs and Assigns forever ; saving, excepting, and reserving, nevertheless, unto Us, Our Heirs and Successors the free uses, passage and enjoyment of, in, over and upon all navigable waters that shall or may be hereafter found on or under, or be flowing through or upon any part of the said parcel, or tract of Land hereby granted as aforesaid ; and also excepting and reserving unto Us, our Heirs and Successors, for the benefit and use of all persons requiring to use the same the free use and navigation of all creeks and streams running through or upon any part of the said parcel or tract of land hereby granted and not embraced in the reservation hereinbefore contained, for the purpose of running and floating down saw lows and other timber, lumber, rafts, and crafts, at all times and seasons, and excepting and reserving also for the use and benefit of all persons requiring to use the same, for the purpose of running and floating down or upon any creek, stream or navigable water upon the said parcel or tract of land, the right to enter in and upon the same parcel or tract of land, and to occupy and use so much of the banks of the said creeks or streams and of the said navigable waters as may be necessary for the purpose of such running and floating, and for the further purpose of erecting, constructing and repairing such dams, slides, and works as may be required for the purposes aforesaid, doing no unnecessary damage thereby.

"And it is hereby declared that the grant aforesaid is made on the express condition that the said Grantee, for himself, his Heirs and Assigns, consents and agrees that all persons desiring to use the same shall have the right to enjoy the easements hereinbefore reserved."

FOSSIL TREES.

The Smithonian Institution has received from Fort Wingate, New Mexico, a car load of curiosities, including portions of two stone trees, one from the neighborhood of the Fort, the other from the banks of the Lithodendron, 20 miles from Navajoe Springs, Arizona.

For these massive specimens the museum is indebted to the thoughtfulness of General Sherman, who, while crossing the continent in 1878, suggested to Colonel Swain, then in command at For Wingate, the expediency of securing them.

Acting upon his suggestion, an expedition was organized early in the spring of 1879 to proceed to the Lithodendron (stone trees) in Arizona. Thomas V. Kearns, a gentleman of long residence in that part of the country, and familiar with the locality to be explored, kindly volunteered his services, and success was, in a great measure, due to his efforts in carrying out the wishes of the General. The military detail consisted of Second Lieut. J. T. C. Hegewald, one seargent, and twelve soldiers, all of the Fifteenth United States Infantry, and the party was well supplied with army waggon running gears specially arranged for hauling stone, and with tools and appliances complete.

In his report of the expedition Lieutenant Hegewald says that the Navajoes, who were pasturing their sheep about the head waters of the Lithodendron, thought it was very strange that the "Great Father in Washington" should want some of the bones of the "Great Giant" their forefathers had killed years ago when taking possession of the country, the *lava beds* being the remains of the blood that ran from his wounds. Specimens by thousands were found on each side of the valley of the Lithodendron, there about half a mile wide. Along the slopes, which were perhaps 50 feet high, no vegetation whatever was to be seen ; wood being very scarce, the soil was composed of clay and sand mostly, and the petrifactions, broken into millions of pieces, lay scattered adown the slopes. Some of the large fossil trees were well preserved, though the action of the heat and cold had broken most of them in sections from 2 to 10 feet long, Many of them must have been immense trees ; several which Lieutenant Hegewald measured were from 150 to 200 feet in length, and from 2 to 4½ feet in diameter, the centers often containing beautiful quartz crystals.

Only one of the two specimens obtained from the Lithodendron by Mr. Kearns and Lieutenant Hegewald was forwarded to Washington. In the place of the second one brought in from the locality of the Lithodendron, a better specimen was found on the Mesa, to the north of and adjacent to Fort Wingate. The specimens had to be hauled to Santa Fe, New Mexico, to be shipped by rail.

FOREST FIRES.

During the next few months we may expect to see the usual accounts of forest fires having spread over large areas, destroyed much valuable property and imperiled many lives ; with these will be complaints of criminal carelessness on the part of exploring parties, trappers and fishermen, and we shall be told of the lamentable destruction of valuable timber with the consequent losses to the lumbermen and the government, and the poor innocent lumbermen will call upon the government for protection against the criminal carelessness of the people who visit the backwoods in the summer time, as these are the stereotyped accounts of proceedings of which we read from year to year, and which will continue to occur so long as lumbering continues and valuable timber remains to be destroyed. Already forest fires in the interior of Wisconsin have destroyed several logging camps with all the cut of logs and an immense amount of standing timber. It is reported several lives have been lost and many cattle burned to death. It is stated that at least 30,000,000 feet of standing pine has been destroyed in Pike river pinery.

It does not seem to have occurred to the minds of the average journalist or legislator that the lumbermen themselves, by their own deliberate criminal carelessness are responsible for nearly every one of these fires, and that few, if any, of them proceed from causes other than those deliberately prepared by the lumbermen ; but, if any one will take the trouble to think for a few minutes of the processes of taking out saw logs or squared timber, he will at once perceive how assuredly the occurrence of these fires is provided for year after year by those who most complain of loss by them. During the whole of the winter months choppers are cutting down pine trees, trimming off tops and branches, and if for saw logs, cutting them in lengths, or if for squared timber, cutting off the sides of the trees ; by these means the ground is covered with chips, branches, limbs and blocks all full of and covered with resin : but in addition to these, the lumbermen leave behind them the light brushwood which they have cut from lines of roads which they have made as avenues from the trees to the sideways and the water ; so that a mass of inflammable matter with trains and avenues of communication is left covering an immense area, to he kindled into an appalling conflagration by the spark from a shantyman's pipe, the rubbing of two trees or a stroke of lightning. The hollow, dead, worm-eaten, or decayed trees are left standing ; sometimes one tree is left lodged in the branch of another, so that every breath of wind causes a rubbing which finally causes ignition, a process which taught the Indians their mode of procuring fire ; the old dry pines left standing alone are often struck by lightning which sets them on fire, and so quite natural causes communicate fire to the resinous masses left by the lumbermen, in which it spreads with fearful rapidity, and sweeps with resistless force over immense areas, as the heated atmosphere prepares its way and the wind drives it forward.

What remedy, then, remains for this annual imperilment and destruction of property ? Only one, and that is the proper clearing of the lands which have been cut over by the lumbermen every season. To this we hear the objection that it must cause such an increase of the cost of procuring timber as to preclude profit from the business, but we think we heard the same objection when it was proposed that these same lumbermen should no longer be allowed to dump their sawdust and slabs into the rivers and streams, to the destruction of fisheries and interference with navigation. As to this it would appear from the general reports that the preservation of our forests is one of our most important duties, and that no outlay we can make is so likely to be remunerative as that which will prevent the destruction of our timber ; therefore we hope to see the question properly considered, and put a stop to the lumbermen's cry of "Wolf !"—*Montreal Journal of Commerce.*

A YOUNG MAN writes : "I have used Mack's Magnetic Medicine and am much pleased with the result. It has cured me after doctors and other medicines had failed." See advertisement in another column.

OUR FORESTS.

The N. Y. *Shipping List* truly remarks that "the question of timber preservation and timber culture, not only on the public, but on the private lands of the United States, is one of the most difficult, and also one of the most interesting problems that are attracting attention." If, says the *Globe*, it is this to the States, it is all that and a good deal more to Canada, from the fact that timber is our great stample export, whereby we pay for the most of our imports, and that a great part of the land off which it has in time past been raised is not likely ever to yield a better crop. Yet we probably find destruction going on here quite as fast as there, though to us it is doubly pernicious. Everything that our contemporary says in regard to the States applies much more strongly to Canada, and in the hope that the troubles already experinced across the line may operate as a warning on this side of it, we go on to copy its article as follows :—

"The evils of past destruction have been a great increase in the cost of fuel, in the price of lumber and timber, hindering the erection of dwellings, and rendering furniture very expensive, and the high rates of fares and freight charges on our lines of travel and transportation from the increased cost of building and equipping steamboats and railroads. Cheap bread, cheap houses, cheap fuel, and cheap transportation of passengers and freight are fundamental to the material growth and prosperity of a nation. All these are hindered by the havoc now making in our forests. The consumption by building railroads, for railroad fuel, the general consumption of wood for fuel in the country, the consumption by mechanical industry, the destruction by war, by improvident waste, and the destruction by farmers, who, when wood commands a high price, cut down the choicest trees, are among the causes which threaten the noble forest growth of America with extinction. Woodland brings in, without ploughing or sowing or fertilizing, that of which the average owner never has too much—ready money. The tree economists, therefore, have a powerful and wide-spread influence to contend against, and can hardly hope to arrest the tree slaughter on private lands. If they can awaken any enthusiasm for tree culture among the agricultural classes it will be about as much as we can expect them to accomplish. No private efforts can meet the emergency. Congress and the State Legislatures should afford every facility for the proper understanding of the subject, and for the adoption of the most thorough means to prevent what threatens to become eventually a national calamity.

The present commisioner of the general land office, who appears to have a just appreciation of the subject, has taken such measures as he has authority to take to more fully preserve our public timber lands in the North-west, which have been so ruthlessly destroyed in the past. The commissioner has acted upon the assumption that most of the timber depredations have been committed by ignorant and illeterate settlers, who not unnaturally imagined that settlement under homestead or pre-emption laws gave them the right to cut and sell timber at pleasure, and in many instances they have been induced by speculators to enter land for the very purpose of selling the timber from it. The blanks furnished to settlers to be filled up hitherto have had no warning covering this point, but the commissioner has now supplied the omission in these emphatic terms :—"Timber land embraced in a homestead or other entry—not consummated—may be cleared in order to cultivate the land and improve the premises, but for no other purposes." It is thought that this precaution will lessen timber depredations on the public lands about one-third, which, if not an over-estimate, will be a marked and gratifying reduction of the evil, while at the same time it will give the prosecutions that may take place, the prestige of better understood law than they have before enjoyed. But something more than this is needed.

Europe, in its forest laws, is far ahead of the United States, and is in less danger, at this moment, of becoming a desert than is the United States, unless something prompt and effective shall be done to arrest the wholesale destruction of timber which is still going on in all parts of the country. It has been truly said that growth is slow and restorations tedious, while destruction is rapid and injury instantaneous. Palestine and Syria, Egypt and Italy, France and Spain have seen some of their most fertile lands turned into deserts by the destruction of the forests. There are parts of Asia Minor, of Northern Africa, of Greece, and even of Alpine Europe, once covered with luxuriant woods, verdant pastures and fertile meadows, which have now become so completely desolate as to be rendered an unfit abode for man. We are really in danger here of such a result in some sections of the country, unless intelligent and immediate measures of remedy are adopted.

FROM QUEBEC TO LONDON.

The *Timber Trades Journal*, of July 8th, says :—The *Ocean King*, though not reported in the river as soon as the *Hovding*, mentioned in our last, was actually docked first, and may hence claim to have brought the first pine cargo of the season. The first named, a large steamer left Quebec two days later than the *Hovding*, and, in addition, had to coal some way down the St. Lawrence, which caused a further delay; otherwise she would have made the passage much quicker, and no doubt passed the sailing vessel before making the land. On her part, the *Hovding*, always a fast vessel, made on this occasion one of the quickest runs on record, viz., 21 days, being an average of 150 miles a day from port to port, a rate of speed that we think has seldom been exceeded by a sailing ship with a wood cargo.

The *Ocean King* has discharged her cargo, amounting to over 650 standards, and is by this time probably clear of the Channel on her way to fetch another from the same port. The *Hovding* does not appear to need such despatch as the steamer, and is still in the process of discharging. The cargoes brought by these vessels consisted almost entirely of bright pine deals, except in respect to the steamer, from which we observed a number of cases were being being delivered into lighters alongside.

These cargoes are both imported by Messrs. Bryant, Powis & Bryant, and appear to be in a very fine condition. This firm may claim to be the recipients of the first three spring arrivals, for since the two mentioned were docked the *Earl King*, another steamer from Quebec, loaded by them, arrived in the Surrey Commercial Docks on the third, having made a quick passage from Quebec to London, being reported in the river as soon as she was due. We may look now for more activity in the vicinity of Albion Yard, as the bulk of the pine vessels discharge in the dock of that name, and, though the recently-landed cargoes will speedily be stowed away, others of the Quebec fleet may be expected to be shortly dropping in to keep the dock officials busy at this spot for some time to come ; pine deals are not stacked so easily as other descriptions, from the peculiar style they are piled ; thus, if many steamers compose the Quebec fleet, it will be difficult, we expect, to keep a clear space on the quays there.

SHORT SIGHTED ECONOMY.

THE *Moniteur du Commerce*, the admirable commercial journal published in French at Montreal, has an article on the neglect of the means of protection against fire, and as it will be both interesting and instructive to our readers, we translate it as follows :—

"The numerous disasters caused by fires in the country, and of which every day the journals record some new examples, call attention to the means of protection which in this country would be at the disposal of each municipality, but of which the carelessness and apathy of the municipal councils makes no use.

"If there is any country in which water courses are numerous and in proximity to every village, it is Canada, nevertheless how few municipalities, outside the larger towns, utilize the neighbouring water-courses, so as to make of them reservoirs, where in cases of fire they would immediately find a valuable resource, sufficient to avert all danger.

"Have we not had a new example of this carelessness in the last few days? A village close to Montreal and actually situated on the river, being invaded by fire, asked aid from Longveuile in default of having the apparatus necessary for arresting a fire at its commencement. Other villages would only have to make a trench to construct an aqueduct for some acres and all danger from fire would disappear for ever ; the harvest, the cattle, and the granaries, would thus become an assured fortune that the destructive element could not annihilate, and nevertheless they do nothing ; they forget, in the absence of a disastrous precedent, that the danger is so much the greater because so far they have escaped it.

"One can understand, to a certain point, how in the scattered villages, of which agriculture is the only industry, they slumber in the monotony of their labours and do not always keep in mind the importance of the means of protection against fire. But what can we say of a town that already possesses one of the most important cotton factories in the country, which has a trade great enough for 70 merchants to have establishments there, which comprises 688 dwelling houses, at least 600 of which are wood, which has property in real estate and stocks amounting to more than $1,500,000, and which hesitates about the construction of an aqueduct bringing to its centre the most complete security against all danger from fire? It is thus that the municipality of Valleyfield understands the interest of the town ; it is thus that house property, the cotton industry and trade of every kind, remains exposed to the risk of a conflagration which would sweep away in an instant the fortunes of the whole population, because the apathy of some of the municipal councillors is sufficient to paralyse the intelligent and enlightened opinion of the other members of the council. Already industries in search af a suitable locality, which they hoped to find at Valleyfield, have recoiled from the danger which they would have run there, and we cannot blame them. An industry which lives by progress and activity cannot live in contact with torpid apathy which repulses all improvement."

SWEDISH EXPORTS OF WOOD.

The *Timber Trades Journal* says :—The exports of wood goods from Sweden in each of the last five years, during the period from January to May, have been, according to statistical returns, as follows :—

	Sawn & planed. *Pt. stds.*	*Hewn.* *Cub. ft.*
1882	147,601	1,878,811
1881	33,497	881,841
1880	141,265	2,355,577
1879	43,878	674,535
1878	126,925	2,363,425

The figures are stated in cubic metres, which are reduced into Petersburg standards for the sawn and planed by taking every standard at 4.67204 cubic metres, and with regard to hewn into English cubic feet, of which the number of 35.316 corresponds to every cubic metre. These are, no doubt, the best descriptions of measures comprehensible to the trade in this country. Deducting the figures lately quoted by the Swedish correspondent for the exports in January to April during the last two years, it will then be seen they are in May this and last year as follows :—

	Sawn & planed. *Pt. stds.*	*Hewn.* *Cub. ft.*
1882	103,466	1,158,345
1881	24,936	574,584

showing the enormous quantities exported this May, in spite of the diminution of the import to London.

The exports of wood pulp and matches are during the last five years :—

	Wood Pulp. *Tons.*	*Matches.* *Tons.*
1882	2,905	3,860
1881	1,457	3,405
1880	3,346	3,592
1879	2,608	2,520
1878	1,190	2,687

the figures being stated in kilogrammes, reduced to 1.016 per each ton.

THE ENGLISH MARKET.

Messrs. Robert Coltart & Co.'s wood circular of July 4th says :—"There was a very dull feeling in the wood market during the early part of the past month, the shipments of pitch pine and spruce deals by steamers, which were sold on arrival at the best prices obtainable, having somewhat depressed the market, but as steamers are not now offering for wood freights, the tone has latterly improved, and prices are firmer than they were during the early part of the month. The consumption has continued on a very fair scale, and stocks, with the exception of pitch pine, are still very light.

COLONIAL WOODS.—The stock of Quebec square and waney pine is very light, consisting of only 158,000 feet, against 564,000 feet at the same time last year ; sales have been by retail only, with the exception of a small parcel of square pine (wrecked wood) brought coastwise, which realized an average of about 20½d per foot. The demand for Red Pine is dull, the consumption during the month amounting to only 5,000 feet. Oak is in fair demand, and the stock of prime wood is small. Of elm and ash there are no sales to report. Birch is in better demand, the consumption during the month consisting of 42,000 feet, against 23,000 at the same time last year ; by auction, 830 logs, ex *Arklow*, from St. John, were sold at prices ranging from 14d to 22½d, averaging 17½d per foot, and 944 logs, ex *Endymion*, from Halifax, at 14½ to 22½d, averaging 16½d per foot ; the present stock consists of 22,000 feet. The import of N. B. and N.S. spruce deals has been rather heavy during the month, several cargoes having arrived by steamers, which has caused prices to decline; by auction St. John averaged £7 7s 4d per standard, Bridgewater £7 7s 6d per standard, and St. Margaret's Bay £7 2s 3d per standard, and by private St. John has been sold at £7 to £7 5s per standard, and Bay Verte at £6 15s 6d per standard, c.i.f. Quebec pine deals have come forward to the extent of 2,627 standards, against 1,042 standards during the corresponding period last year, the bulk of which has been yarded, but sales are reported at £14 10s to £15 per standard for 2nd quality, and £8 17s 6d to £9 5s per standard for 3rd quality. Of merchantable pipe and puncheon staves there are no sales to report.

The arrivals since our last have been 53 vessels, 40,811 tons, against 45 vessels, 33,840 tons in corresponding period last year, and 46 vessels, 33,521 tons in 1880.

From 26th January to 30th June, 1882 :—

	Vessels.	*Tons.*
Quebec	7	5,050
St. John, N.B., &c.	34	33,066
United States	68	54,206
Baltic	75	32,698
Total	184	125,040

From 26th January to 30th June, 1881 :—

Quebec	4	4,027
St. John, N.B., &c	24	25,259
United States	57	42,199
Baltic	62	24,817
Total	148	96,302

From 26th January to 30th June, 1880 :—

Quebec	2	2,517
St. John, N.B., &c.	42	41,661
United States	42	34,114
Baltic	88	33,241
Total	174	111,533

SUPPLYING MANITOBA.

The *Northwestern Lumberman* says :—A noteworthy feature of Chicago trade latterly is the shipment of 75 cars—perhaps more—of lumber to Manitoba. Mr. Getchell, of Getchell, Armour & Co., is entitled to the credit of working up this little Manitoba boom, having visited the new Canadian province and put in some personal endeavor to effect the result. The lumber forwarded was all dry stuff, and the resources of the yards all over the district were vigorously drawn upon to make up a shipment of 60 cars, which is evidence that dry stock is not very plenty here. Round prices were paid for the lumber picked up to fill this order, and yet it is said the venture was a profitable one. This spurt of Manitoba business should not be taken as a premonitor for anything extensive in that direction, for coals cannot always be carried to Newcastle, neither can lumber be shipped through the producing regions of the upper Mississippi to Manitoba at a profit, unless it be to satisfy some special demand. In this instance Minneapolis did not have the dry lumber that Manitoba wanted, but Chicago did have it.

THE Rev. Charles E. Piper, formerly of Pittfield, N. H., but now of Wakefield, R. I., writes :—"I have used Baxter's Mandrake Bitters in my family for over two years, and as a result have not called a physician in the whole time. My wife had been an invalid for two years, but these bitters have cured her."

F. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

LEATHER BELTING

First Prize, Provincial Exhibition.....Ottawa, 1875
First Prize, Provincial Exhibition..... Hamilton, 1876
First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition.....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

L21

81 Colborne Street, Toronto

PINE BARK MEDICINAL.

We are of opinion that there is a greater malarial influence in green pine, within a short time after it has been fallen, than in the slabs and saw mill refuse which go to make land in the vicinity of a saw mill, or to fill up a stream into which it may have fallen. The writer has for many years found it impossible to chew the soft inside strata of pine bark without being afflicted with difficulties akin to chills and fever and fever and ague. Lumbermen are familiar with and fond of chewing the inside growth or skin next to the sap of a green pine, but in the case we allude to the practice had to be wholly given up for the reasons given. At no other time than when occasionally indulging in the habit referred to were the symptoms manifest, and the only conclusion that could legitimately be reached attributed the disease to that cause. We have never heard of the bark being utilized for medicinal purposes, but if the doctrines of the Homeopathic school of medicine are universal in their application, there can be no doubt that in this inner bark may be found medicinal properties; but that its decay in the water or under the usual conditions surrounding its waste in a stream, or as a filling for low ground, is sufficiently miasmatic in its influence to give rise to a charge of unhealthfulness, we cannot for a moment believe after thirty years of careful observation.—*Northwestern Lumberman.*

THE *Canadian Manufacturer* says:—Among the industries that are "booming" just now may be mentioned the construction of ready-made houses for the North-West. Such houses are being got up at Quebec, Ottawa, Belleville, Hamilton, and other points, and competition for the best and most convenient plan is lively. Tents are also in great demand, and it is said that in and about Winnipeg there are to-day more than three thousand people living in tents.

HYDROLEINE

(HYDRATED OIL.)

An artificially digested Cod Liver Oil.

For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

—o—

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artificial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

For sale by all Druggists.

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Commission Lumber Dealers,

FORWARDERS,

Shipping and General Agents

PORT HOPE.

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TRENT NAVIGATION

NOTICE TO CONTRACTORS.

THE letting of the works for the FENELON FALLS, BUCKHORN and BURLEIGH CANALS, advertised to take place on the second day of August next, is unavoidably further postponed to the following dates:—

Tenders will be received until Thursday, the Twenty-fourth day of August next.

Plans, Specifications, &c., will be ready for examination, (at the places previously mentioned) on Thursday the Tenth day of August next.

By order,

A. P. BRADLEY,
Secretary.

Dept. of Railways and Canals,
Ottawa, 15th July, 1882. 6d17 2L15

Welland Canal Enlargement.

NOTICE TO CONTRACTORS.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for the Welland Canal," will be received at this Office until the arrival of the Eastern and Western Mails on FRIDAY, the 1st day of SEPTEMBER next, for the deepening and completion of that part of the Welland Canal, between Ramey's Bend and Port Colborne, known as Section 34, embracing the greater part of what is called "Rock Cut."

Plans showing the position of the work, and specifications for what remains to be done, can be seen at this Office, and at the Resident Engineer's Office, Welland, on and after FRIDAY, the 18th day of AUGUST next, where printed forms of tender can be obtained.

Contractors are requested to bear in mind that tenders will not be considered unless made strictly in accordance with the printed forms, and, in the case of firms, except there are attached the actual signatures, the nature of the occupation and place of residence of each member of the same; and further, an accepted bank cheque for the sum of *four thousand* dollars must accompany the respective tenders, which sum shall be forfeited if the party tendering declines entering into contract for the works, at the rates stated in the offer submitted.

The cheque or money thus sent in will be returned to the respective contractors whose tenders are not accepted.

This Department does not, however, bind itself to accept the lowest or any tender.

By order,

A. P. BRADLEY,
Secretary.

Department of Railways and Canals,
Ottawa, 15th July, 1882. } 6d15-1aw 2L15

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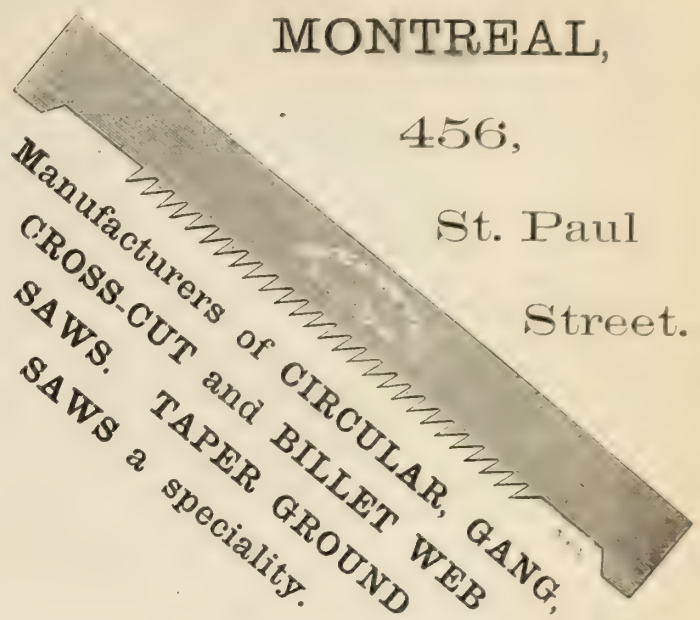

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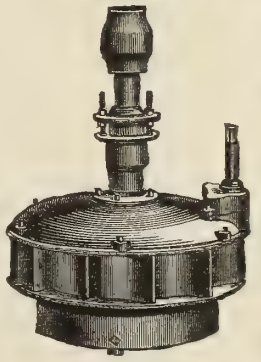

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SAW MILLS!

Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,

ST. THOMAS, ONTARIO.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills

L7tf

THE CATALPA SPECIOSA.

We have before us an interesting monograph on the Western Catalpa, by Dr. John. A. Warder, of Ohio, Vice-President of the American Forestry Association, and an enthusiastic forester. He clearly proves that the hardy Western Catalpa Speciosa is a different species from the tender Southern Catalpa Bignonioides, and points out the greater merits of his favorite tree.

We extract from his pamphlet the following particulars :—

The wood of the Catalpa is light, and yet it is sufficiently strong, and it is hard enough for most purposes of construction. It has been highly approved for bridge timbers where it is exposed to the weather ; it has been the favorite material for fence posts in a large tract of country ; it works easily in making shingles, which have been found to last longer than the houses they covered, and in one case we are told that they were really taken off and used in another building.

On the St. Louis and Iron Mountain Railway, near Charlestown, Missouri, there is a portion of the track laid eleven years ago on Catalpa sleepers, which are yet sound, while many of the oak fence posts inclosing the road, though planted since it was built, have need to be replaced. The oak ties last scarcely five years on the same soil and exposure. Mr. David Axtel, the intelligent engineer in charge of this part of the road, reports that Catalpa holds the spikes well enough, and that when the ties become mashed they are no longer rejected, but simply turned over, so as to present a new bearing. Some that had been thrown out by the track-men have been used as fence posts, and bid fair to last for many years.

In his letter to Mr. Barney the same gentleman writes : "There is nothing to indicate that the Catalpa ties in our track do not hold spikes sufficiently well. Nearly all the spikes are in the same holes originally made when driving them. There has been no spreading of the track. I have examined the few ties the rails have settled into, and find none that will not last a number of years by turning them over. These ties are six and eight inches face ; if they were wider, as you suggest, there would be more resistance to crushing."

Before passing from this branch of the subject, the peculiar ligneous structure of this tree should be more particularly noted. The alburnum or sapwood is very limited, and consists of but one or two of the concentric layers, generally, indeed, that of the last year's growth only ; so that, in the preparation of cross-ties, a stick, twelve inches or more in diameter, needs only to be split, or sawed, so as to make two sleepers, instead of the more expensive hewing required to make but one from the same material. The timber, in this shape, with the maximum extent of bearing for the rail, and having only the bark and a thin layer subject to decay, may be laid with its convex side next the road bed, in the best position for tamping the tie when placed in the track.

Little need be added to the mass of facts collected by Mr. Barney, going to show that the wood of the Catalpa is strong and hard enough for most economic purposes ; that it works smoothly and takes a beautiful surface, and is sufficiently varied in its tints to make it highly ornamental for inside finish. At the same time, though light, it is perdurable for all purposes where it is exposed to the elements.

Dr. Schneck, of Mt. Carmel, Illinois, states that the lumber, on account of these qualities, has been in great repute near the mouth of the Wabash, "for the building of skiffs, and that it is being rapidly exhausted in other localities by the constant demand upon the trees for fence-posts ; these are taken to a great distance, and the trees ase often cut at night and stolen." Similar testimony is borne by James Bell, an extensive dealer and manufacturer of lumber at Ullin, Illinois. J. T. Mills, Esq., of the Evansville & Terre Haute Railroad, is purchasing many thousands of these posts to fence the road; and has also planted largely on the White River for future use.

In all the Delta region of four or five States surrounding Cairo, Illinois, particularly on the west bank of the great River, Catalpa has been in such demand for fence posts and foundation logs, that the accessible stock of standing trees is well nigh exhausted. In that low tract of humid soil, sections of Catalpa logs are used to support the corners of the buildings erected there, and they make the most permanent foundations—"corner stones."

Near New Madrid, there are many fence-posts which have stood and remained perfectly sound for long periods, 20, 30, and even 40 years. The story of the standing Catalpa trees that were killed by the disturbances and submergence of land, caused by the earthquake of 1811, which we have all been disposed to doubt, is to this day fully confirmed by occular demonstration. In the lagoons there stand the broken shafts of noble trees ; all other species, submerged by the same catastrophe, have crumbled and fallen into the water long ago, but these silent monuments of that convulsion still remain, not as living witnesses, but as dead memorials of the disturbance of level, which caused their death, and their now approaching dissolution ; but there they have stood for seventy years, under conditions most favorable to decay, and thence are they brought, when cut, and are used for fencing.

ADAPTION TO SOIL AND CLIMATE.

With wonderful powers of accommodation, however, this tree has been found to adopt itself to almost every kind of soil. It thrives, and even becomes naturalized, reproducing itself in situations very different from those of its native homes. This it has done upon the hungry gravels about Baltimore and Washington, and upon the mica-schists of Eastern Pennsylvania, as well as in the lime-stone valleys of that state. It thrives on the tertiary sands and gravels of New Jersey, near the Atlantic coast, and on the red sandstone of that state. It is found on the clay and gravel drifts of Southern New York, as well as on the Hudson, where Downing used it to retain the river banks. It may be seen on the hard conglomerate of the drift-scored rocks of Dorchester heights, and it thrives on the sands of Cape Cod.

So, also, in its Western migrations, it seems to thrive everywhere ; at Cincinnati upon the tenacious clays, the resultant debris of the old silurian limestones, on the modified drift of the river terraces, and on the rich alluvium of the bottom lands, it seems equally at home. About Dayton it thrives on the terraces and bottom lands of the Miami, and at Columbus upon the rich walnut lands that rest upon the boulder drift which has ploughed through the Devonian shales and the upper silurian limestones. At Chilicothe on the Scioto it appears to be satisfied with the hills of the Waverly sandstone, and at Marietta, where it was planted at an early day, it has become naturalized upon the debris of the coal measures there cut through by the Muskingum.

And in the States west of Ohio to which this tree has been taken, it thrives upon all soils and everywhere, if not too cold. Among the stumps of the heavily timbered lands of Indiana, and out in the open prairies of Illinois, it does equally well, but it is especially thrifty upon the great deposits of the Loess or Bluff formation of Missouri, Iowa and Nebraska, and parts of Kansas.

In this respect the Catalpa seems to have the advantage over some other trees in its wonderful power of adaptation, and hence its great promise as an element of success in the upbuilding of American forestry.

Mr. Robert Douglas, of Illinois, who has propagated the Speciosa Catalpa more largely than anyone else, and who has planted some hundreds of thousands of them on the plains of Kansas, pronounces this Western species, which he has thoroughly studied in its native forest and artificial plantation, "one of the best, if not the very best tree, that has yet been introduced for timber plantations in the Middle States.

PROPAGATION.

The *propagation* of the Catalpa is very simple and easy. The plants may be multiplied by cuttings where that method is desired ; it has been practised to a limited extent. In the Western forests limbs of fallen trees take root in the humid soil, and produce new trees, natural layers, giving us a hint that is put in practice when we desire to increase our stock of the dwarf kind that never blossomed. This form and some sports, with colored foliage, may also be multiplied by grafting and budding.

But it is always best to increase our stock of these trees by sowing the seeds, which is, indeed, the only practicable method of producing the millions of plants that will be needed, so soon as the merits of this tree are appreciated. The seeds germinate readily, the plants grow rapidly and are ready to set out after one summer's growth. The seed should be kept dry during the winter, safe from the mice, and need not be planted until the soil is warmed. The soil being well prepared, a shallow drill is made. This can be done with a small plough. In this the seed is strewn rather thickly, so as to lie one or two inches apart and four or five inches wide. They should be at once covered with fine soil, from one quarter to half an inch deep, according to the condition of the ground as to humidity, and the prospects for showers. If the conditions be favorable they soon vegetate, when the young plants should be well cultivated and kept clear of weeds, especially during the first part of the season.

The leaves fall with the first frost, and, after standing a few days to harden up their tissues, the young plants may be taken up with the spade, or by using the small tree-digger plow, or even a common one-horse plow, when they should be assorted for size, and put into cellars or heeled-in deeply out of doors, unless indeed they be at once planted in their permanent stations.

PLANTATIONS.

With a proper selection of the kind—that is, of course, the favorite *Catalpa Speciosa*—no one need hesitate to undertake a plantation. The trees are sure to grow, are easily cultivated, and speedily yield satisfactory returns for the most valuable material.

If in the prairie regions, where the railroads are most in need of cultivated forests, to furnish the future supplies of ties, posts and other lumber, land should be selected that has already been in cultivation for one or more years. This should be well ploughed in the fall, and may then at once be planted, or left to lie fallow over winter.

The planting is a very simple affair when once a gang of hands has been organized ; and each man will set from one thousand to fifteen hundred in a day. After the surface has been marked out, with furrows four feet apart, the little trees are dropped at about the same distance, and at once planted with the spade, and the soil is closely tramped by the feet. As the rows are set, or soon after, a one-horse plow follows, to bank them up slightly. In fall planting this furrow may be made rather heavy, to protect the little plants and lead the surface water from them. This ridge will have to be worked down with harrow or cultivator in the spring, before the buds have started, and such cultivation will destroy the first crop of weeds. Cultivation should be continued at intervals during the summer, so as to keep the ground clear of weeds, and to encourage the growth of the young trees, which will have made sturdy shoots of from one to four feet high, and will be well established in the soil.

If some of the little trees be crooked or branched, no matter, for during the winter or in early spring they may all be cut off near the surface of the ground, to secure a strong, thrifty and even growth the next summer, when, if sufficiently cultivated up to July, the result will be most satisfactory and encouraging, in an even stand of sturdy trees, averaging not more than four feet apart, and reaching a height of five, six, or more feet, and so completely shading the ground that no further cultivation will be needed beyond cutting out a weed here and there during the next season.

If the growth have not been very strong the first season, it may be advisable to defer the cutting back for another year, by which time the roots will have become so much more fully established that the shoots will be proportionately robust ; so that, with proper cultivation and removing superfluous shoots, leaving only one to each plant, the result will be a stronger growth of taller trees, and at the end of the third summer from planting they will average six feet in height.

This treatment is especially recommended because of the peculiar leaf arrangement, or phyllotaxy, in the Catalpa, which is in whorls of three, hence the tendency to throw out from the group of terminal buds as many shoots, that cause the tree to be low branched, and to require some attention in pruning ; the higher the stocks, therefore, the better. The close planting here advised is also recommended with a view to obviating this difficulty, as the surplus shoots will be smothered and die where thus crowded, and little or no pruning will be required to remove them.

Thinning may become necessary after a few years, but an experience of seven or eight years in my own limited plantations induces the belief that natural causes will very near suffice to thin out the surplus trees with very little interference by human agency. Further on it may become necessary to use the axe in thinning out the trees to enable them to develop themselves ; but we should not count too confidently upon the profits to be derived from this source. Some poles may be had for fencing and other economical purposes, for garden and vineyard stakes, and even for hop-poles, to all which uses the lightness and durability of the material well adapts it. Time and experience will give us further insight into the details of trimming and of thinning the plantations.

CONCLUSION.

In drawing this monograph to a conclusion, it may be well to impress upon the reader the exceedingly important fact that we have in the United States two very distinct species of Catalpa, one of which is especially western in its native habitat. This species is in every way a superior tree for our uses, and promises to be a most important factor in our future forest plantations. It is superior in its habit and in its hardiness. What has been said of the value of Catalpa lumber may be equally true of either kind, except that our tree alone will be able to produce dimension timbers ; hence, so far as at present advised and informed, you are begged to plant no other than the *Catalpa Speciosa* as an economical tree. The others may do on a lawn or in the park, but this alone should constitute our groves and plantations planted for utility.

Think not, however, that we who have manifested so great an interest in this tree which we have so highly recommended to you, think not that we would have you restrict yourselves to any one tree. We have indeed a noble sylva, a rich inheritance of trees, from which to make our selections. These have various excellencies and are severally adapted to diverse uses, and to different situations as to soil, aspect and elevation above the sea-level. Some are peculiarly adapted to almost every portion of our extended country, where others would not succeed. Let each planter use his own good judgment in the selection of the various kinds best adapted to his own particular local conditions.

To the great railroad corporations, who should be the first to improve their vast estates on our Western plains by timber planting, the *Catalpa Speciosa* is confidently presented as invaluable

JOHN A. WARDER.

A WORD OF CAUTION.

The season for forest fires is approaching. The rainy period that lasted through May and June may be succeeded by a six months' drouth. The possibilities of devastating conflagrations over wide areas are before the residents in timbered regions ; they are before lumbermen, whose operations last winter added a vast amount of hell-fuel to the accumulation of other years. We wonder if either residents or lumbermen have once this year thought of these possibilities. Sometime between now and October there is almost sure to be sweeping fires in the lumber districts of Michigan and Wisconsin that may rival in horror and destruction Peshtigo and "Thumb." What measures have been taken to avert such disaster ? Actually nothing. Experience is said to be a good schoolmaster, though his wages are enormously high. There is one class, though this paper is loth to name it, that seems to learn nothing of a prudential character by experience, and it includes pine land owners and loggers. They go on year after year and allow brush piles to accumulate on their lands—tinder for devouring flames to feed upon—and complain of the hazardous character of standing pine as property. Not the slightest attempt is made to obviate the danger.

Since stumpage has reached its present figure, it would seem that common prudence would cause pine land owners to require jobbers to pile their brush and take care of their tree-tops. Early in the spring, before the ground is dry enough to make a running fire possible, the stuff could be burned, and thus put out of all danger of sometime feeding a mid-summer conflagration. Northern lumbermen could learn something of their southern contemporaries in regard to treatment of timber lands. It is stated by one who has recently been in Mississippi that the pine forests there are, in many instances, kept clean of underbrush, and debris is not allowed to accumulate to any great extent. Fires are thus avoided, and movement among the trees is easier and pleasanter. We know that there is great labor and considerable expense involved in cleaning up the down stuff on timber lands, and that is the reason why it is not done. But the cost would be no more, relatively, than men pay for insurance on other property. It is time that a movement to effect this desirable object of safety to property and life were inaugurated. Who among the lumbermen will put the ball in motion by setting a good example?—*Northwestern Lumberman.*

ENCOURAGING TREE PLANTING.

The Province of Quebec has taken the initiative in the encouragement of the planting and cultivating of trees by an act which was passed last May, and of which the following is a short resume:—Any one, being the proprietor or in possession as the usufructuary of any land, who shall plant any part of such land, not less than an acre in extent, with forest trees, shall be entitled to a land order authorizing him to purchase to an amount not exceeding £12, any public lands within the Crown Land Agency in which trees have been planted. These land orders are null and void if not used within two years from the date of their issue, and the lieutenant-governor, in council, may from time to time make regulations respecting the number and description of trees to be planted in each acre, the number of years during which the trees so planted shall be preserved and not cut down, and other terms and conditions to be fulfilled by persons claiming a land order. But no one can acquire less than 50 or more than 200 acres in this manner, and the order will be accepted as cash in part payment for any land bought from the crown. The planting of seeds, nuts or cuttings is considered compliance with this act, which, however, only comes in force by a proclamation of the Lieutenant-Governor, in council, in such parts of the province as specified in such proclamations.

CUTTING A BOOM.

The Ottawa *Gazette*, of July 14th, says:—Maurice Quesnel and Napoleon Palmer, the first the foreman and the second one of the crew of a raft belonging to Mr. J. B. Dickson were to-day brought up under arrest at Aylmer, before Mr. C. B. Rouleau, district magistrate for the district of Ottawa, on a charge of having wilfully and maliciously cut the Alumette boom, the property of the Upper Ottawa Improvement Company. After the evidence of the witnesses establishing the fact of the boom having been cut by Palmer, under the orders of Quesnel, had been taken, Mr. Foran, on behalf of the defendants, contended that that they should be discharged inasmuch as they had not cut the boom for the purpose of injuring the property of the company, but merely to get the raft out of the boom, and that consequently there was no malice.

Mr. Fleming, for the prosecution, said in reply that it was not established that it was absolutely impossible to take the raft out of the boom without cutting it; and the mere fact of its being inconvenient and expensive to do so after the raft had been, from want of proper caution, taken below the gap in the boom, did not justify the cutting. The court held that the prisoners were not on their trial, that all that was required was a *prima facie* case against them, and that, moreover, the court did not consider the defendants, under the circumstances, justified in cutting the boom; and as they did so wittingly and must have known it was injuring the boom and doing the company damage, it was in law a malicious act, the court would therefore commit the defendants for trial at the next term of the Court of Queen's Bench, but would accept bail for their appearance.

SWEDISH FOREST FIRES.

The *Timber Trades Journal's* Stockholm correspondent says:—The warm weather prevalent lately in Norrland has occasioned a considerable number of forest fires, both in the Medelpad and East Jemtland districts. The most serious of these seem to be that in the neighbourhood of Oratjerndalen village, in the Sundswall district, in a forest belonging to Skonviks Bolag, Sundswall, and one in a forest owned by James Dickson & Co., between Ange station and Dysjon, on the railway to Ostersund. Some of these fires in the neighbourhood of railways are no doubt caused by locomotives, others again by the carelessness of people lighting fires in the woods. A stock of between 500 and 600 standards of deals lying ready for shipment to the Cape and Australia at Peterswik loading quay, Sundswall, and belonging to Mons Angsags, Aktiebolag, was, along with the new quay and several lighters loaded with deals, also burnt a week ago. Ships had already been chartered to convey the goods, which the owners will have a difficulty in replacing with seasoned deals.

Two Departments well Represented.

In lately walking through the Government Buildings at Ottawa, a representative of one of Ottawa's ablest journals, in the course of conversation gleaned some items of interest. Speaking with Mr. A. J. Cambie, Chief Clerk of the Agricultural Department, that gentleman replied to a certain question: "I have used St. Jacobs Oil in my family, and found it to be an excellent article indeed. It is the remedy to banish pain and has a pleasant and soothing way of doing so, that makes it valuable. I consider it a great medicine." Calling upon Mr. Sherwood of the Militia Department, that gentleman thus answered the usual query: "I have found St. Jacobs Oil a great medicine; a splended remedy, indeed, for rheumatism. I have recommended it to many. When I commenced its use I had not much faith, but now my faith could not be easily shaken. I consider it by all odds the best medicine I ever tried."

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CONSUMPTION

is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry: then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all **morbid irritations** and **inflammation** from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,

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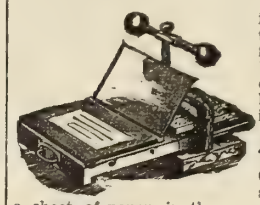

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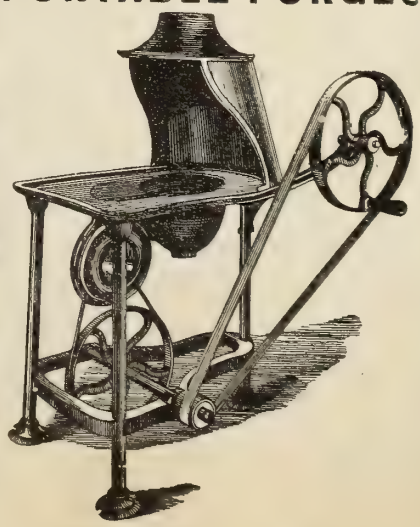

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. AUGUST 1, 1882.

MANISTEE has shipped this season 2,970,000 feet of lumber, 303,584,000 shingles, besides 6,595,000 lath, 1,242,000 feet of timber and other products.

THE Belleville *Ontario* says:—The last of the square timber from Crookston, for Mr. Buck, has arrived here. It is his intention to bring down yet this season 30,000 cubic feet from Hastings.

THE Lindsay *Post* of July 21st says:—The camp of the river hands engaged in loading the timber at the wharf has broken up. Another large lot of timber, the property of one of the banks, is expected at the mouth of the river shortly, and will be shipped by rail from Lindsay.

THE *Timber Trades Journal* says:—The introduction of steam-going vessels into the wood-carrying trade has this season been more marked than any preceeding year. At one of the leading east coast ports there were a fortnight ago seven full steamer loads of sawn wood in the docks being discharged at the same time.

At Tobyhanna Mills, Pa., over 200 men and boys are kept active in the woods getting out the logs and peeling off the bark from the hemlock. This, by the way, is an important article in commerce. Over 4,000 tons were taken last year from the hemlock logs. Eight thousand tons went to market from this vicinity, and it is estimated that no less than 9,000 tons will be supplied this year.

The *Northwestern Lumberman* says:—"The woman who took in stairs to wash finds her antitype in the man who goes around the country with a saw mill cutting up logs by the job, the the same as farmers thrash grain. The indications are that sometime this will be an important industry. There has been so much advance already that saw-mills are towed on rafts from one town to another. A few days ago the tug Badger came into Winneconne, Wis., with a saw-mill from Omro, and the occasion was celebrated like the "Declaration of Independence," with brass bands and booming cannon."

THE Emerson *International* of July 13th says:—Carney & Watson have sold an immense quantity of lumber during the past two weeks to Mennonites, who have recently come from near Fargo, Dakota, and settled in the reserve west of Emerson. They are putting up good houses, and paying for their lumber in gold, of which they seem to have a good supply.

The Parry Sound *North Star* of July 21st says:—The machinery for the manufacture of shingles is now in running order in the Parry Sound Lumber Company's steam mill, and shingles are being turned out at a rapid rate. We understand that the shingle and planing mill of the Midland North Shore Lumber Company is being fitted up and will soon be running.

THE *Northwestern Lumberman* says:—They do things on the jump in northern towns. At Duluth, Minn., the Ohio Central Barge and Coal Company is building a huge dock, and in order to have the work go through on the rush, the orders for timber have been divided among several mills. It is proposed to finish the first section of 300 feet in 60 days, if the thing is possible. The total water-front length of the dock is 2,000 feet.

THE Lindsay *Post* says:—The $5,000 cut to shorten the water route between here and Sturgeon Lake is getting along speedily. The advantage to the boats towing timber will be very great. As it now is the water stretch around the bend is the worst on the river and during a breeze of any strength both vessel and timber generally go aground. Then when the winds go down much work with rising barometer and bad language over that region.

THE Glasgow report of the *Timber Trades Journal* says:—With regard to Quebec deals, taking into account the importation since the stocktaking of 31st March, the consumption during the last three months is shown to be about 2,300 St. Petersburg standards, and Lower Port deals, 3,200 standards. The quarter's consumption of pitch pine appears to be over 8,000 logs, showing a considerable falling off compared with the previous quarter. The stock, it will be observed, is ample.

The *Timber Trades Journal* of July 8 says:—The arrivals of cargoes of wood goods to the port of Bordeaux the last fortnight have been—one steamer from Miramichi, one sailing vessel from Bathurst, one do. from Bridgewater, N.S., two do. from Dantzic, one do. from Skein, one steamer from do., one do. from Soderhamn (Bergvik), one do. from do. (Ljusne), one do. from Sundswall (Ahlafors and Tunadal), one sailing vessel from Drammen, one do. from Skutskar, one steamer from Christiana.

The Muskegon *News* says:—"The operations of the White River Log and Booming company have been progressing nicely thus far this year. The total amount of logs sorted, rafted and delivered from time of commencing work, March 20, including last week, was 75,000,000. To do this work the company employs about seventy men and thirty boys and one tug, the Peter Dalton. Recently it has required the assistance of another tug to do the delivering. One day the boom rafted 131 rafts of logs, in all making 13,100. This is the largest days work ever performed, 101 being the maximum heretofore."

THE *Timber Trades Journal* says:—Will Manchester ever develop into a timber port? Such an occurrence need not be regarded as being at all an unlikely one. The Manchester Ship Canal scheme has now assumed a definite shape. A provisional promotion committee has been formed, and a sum of money has already been subscribed for preliminary expenses. It is estimated that within a few years of the opening of the navigation 5,000,000 tons of goods will pass through the canal. It is said that of the £84,000,000 estimated value of the Liverpool exports, £43,000,000 are represented by Manchester cotton goods. The effect which the canal is likely to have upon the timber trade of Liverpool is of a serious character.

FORESTRY CONGRESS.

WE beg to call the especial attention of our readers to the invitations issued for a meeting of the American Forestry Congress, to be held in Montreal on August 21st and 22nd. It will be remembered that a meeting of the National Forestry Congress was held this year in Cincinnati, but a number of gentlemen from Canada who are interested in Forestry having attended, the title of the association was changed to the "American Forestry Association," so as to include the whole continent, and steps were taken to elect officers to represent the various provinces of the Dominion. Mr. William Little, of Montreal, was appointed Vice-President for the Province of Quebec, and it is by him that the invitations for the present meeting are being issued, it having been determined to hold it in Montreal.

To show the standing of the society we may mention that the Hon. Geo. B. Loring, Commissioner of Agriculture, Washington, is the President, the other officers are gentlemen of high position and repute, and the present meeting is under the patronage of his Honor Lieutenant Governor Robitaille.

It is expected that interesting and instructive papers will be read, and that there will be discussion of subjects connected with the objects of the Congress, which are chiefly the conservation and perpetuation of existing forests, the replacing by new plantations those that have been and are being destroyed, and the clothing of our prairie regions with a due proportion of trees.

Though the lumbermen from the very nature of their business are great destroyers of our forests, there is perhaps no class that is more impressed with the necessity for steps being taken to remedy the rapid destruction that is now taking place, or is more anxious to see improvements made in our present regulations in regard to our wild lands. The general public too is being aroused to the necessity of a change in this respect, as is evidenced by the greater attention paid to it by the press of both countries.

We hope that the Congress at Montreal will be well attended, and that its deliberations will be productive of much good.

TREE PLANTING.

The Ottawa *Citizen* says:—The comfort and beauty of trees in the streets of a city will be fully appreciated by our citizens at the present time, as they go up Daly street and other public thoroughfares, where there is a wealth of foliage to screen one from the hot sun of summer days. No feature of a city is more attractive than a sufficiency of trees, and we hope to see the taste encouraged far and wide in Canada until we can compare favourably in this respect with our American neighbours. Anyone who has visited any charming American city must have come back with pleasant reminiscenses of their embowered streets. The subject is deserving of agition, and we are therefore glad to notice that Mr. J G. Bourinet will contribute a paper on "Tree Planting in Canadian Cities and Towns," to the meeting of the American Forestry Congress, which is to be held at Montreal during the latter part of August. The President is the Hon. G. B. Loring, Commissioner of Agriculture at Washington; the Canadian Vice-President is Mr. Jas. Little, of Montreal. At the spring session held at Cincinnati, valuable papers was read by many prominent public men and scientists, among others by the Hon. Horatio Seymour, of the State of New York. The approaching meeting promises to be equally interesting and profitable. The objects of the Congress are deserving of every encouragement. The rapid destruction of the forests in America by commercial enterprise, but more especially by the agency of fire, renders it necessary to look to the future and take material measures to keep up the supply. Anyone who has visited the timber districts of the Ottawa and its tributary rivers will remember the dreary and pitiable spectacle which constantly presents itself of blackened stumps and tall gaunt remains of what once comprised a noble pine forest. It is not the lumberman after all that is playing sad havoc with the timber of America; it is his interest to preserve the young trees and keep the fire fiend away from his limit. It is the careless settler, or the fisherman, or the sportsman, who is the dangerous enemy of the woods of this continent. Another subject well worthy of the consideration of the Congress is the necessity of planting forests in our North-West. Already in the prairie lands of the Western States and Territories large plantations have been successfully set out, and the authorities offer valuable inducements to settlers to encourage them in the prosecution of so useful a branch of industry. Tree planting in Manitoba must sooner or later be taken up seriously by the settler. Many of our hardiest and most valuable trees will no doubt succeed on the rich prairie lands of the province.

A BIG CUT.

The *Northwestern Lumberman* says:—There are no indications that the lumber trade that is assuming such proportions in northern Wisconsin and Minnesota will become less right away. The new Northwest promises to keep right along and induce settlers without number into its territory, and so long as that continues, so long the demand for lumber will keep up. The argument was used by many lumbermen in the fore part of the season, that so much lumber would go to the new country that the markes of the Mississippi valley would remain firm throughout the season. They said, "How can it be otherwise? There will be less lumber to distribute over the country adjacent to those markets." The result has proved that before a man bets his money he should look over the ground thoroughly. Last winter and spring a representative of the *Lumberman* travelled over great portions of the three great pine-producing states, and he announced that the mills everywhere were being put in a first-class shape—in short, in better shape than they were ever before—and to look out for an immense production of lumber the present season. It was no prediction but a plain statement of facts, and a statement that some have profited by. The stock on hand in the spring was unusually small, yet to-day there is more lumber on hand than was ever known at this time of year before. The mills, with their increased capacity, have been driven for all they were worth, and have turned out lumber almost without end. Should they keep up this gait until the close of the season, with no material increase in the demand for lumber, the country will be well prepared to stand a poor logging season for 1882-83.

The Soft Maple.

In a recent number of your paper is a notice of seed of this species, *Acer dary carpuna*, being sent from Hamilton, Ont., to Manitoba, and calculations are based thereon as to a future grove in that far-off land. Well, the tree is hardy enough, but the seed is one of the most impatient; it must not become dry or it will not vegetate, hence the difficulty in transportation. The seeds of this species, like those of the Red Maple, are almost sprouting plants when they part from the mother tree, and need to be planted at once. The close relationship or analogy between the seed and the bud, pointed out by Dr. Harvey, is no where better shown, and it is worthy of observation.—*J. A. Warder.*

Saw-Dust.

This material is used for bedding in the stables of all our cities, and has quite taken the place of straw, which is reserved for feeding and other purposes in the arts. The refuse from our mills, planing machines and turning shops is eagerly sought and purchased for stable use, nor does there seem to be any prejudice against these materials. The waste of such matter in the streams is very injurious to the fish, and should be forbidden by statute.—*J. A. Warder.*

Kind to the Trees.

Before the removal of the old town of Cullen, a good many trees were planted in the peoples' gardens. This was sometimes resented, but not openly. One day the forester called around to see how they were all thriving. The trees all looked well except the one man's garden. He was asked how his trees were not thriving like the rest. He replied: "I canna understan' it, for I have been very kind to them, and ta'en them in every nicht."

Trade with Australia.

The Montreal correspondent of the *Mail* writing on July 24th says :—Mr. G. W. Sharp, of Sharp & Sons, Lumber Merchants, Melburne, Australia, is in town. Hitherto they have imported from the United States and from Canada indirectly, inasmuch as New England lumber merchants purchase Canadian lumber to resell in the Australian markets. They were not satisfied, and the object of Mr. Sharp's visit is to establish a direct trade if possible. The Hon. Mr. Skead has shown all that is to be seen in his locality, and Messrs Gilmour, Eddy, and other lumber kings of the Ottawa have done likewise. Mr. Sharp states he was greaty pleased with all he saw, and he was most unfavourably impressed with what he saw of the United States trade. He has already made arrangements for direct business being done in lumber, as also in other staples, particularly in dried fish and petroleum, which are now almost entirely supplied by the United States in very large quantities. Petroleum could be very profitably shipped to a very large extent.

A Year's Tree Planting.

Those who regard with dismay the cutting down of trees, and believe that the area of woodland in Britain is gradually disappearing, may take comfort from some of the figures stated in the return as to the prices for British timber realized during the season 1881-82. From those figures it will be seen that throughout England, Scotland, Ireland, and Wales, there were planted on various estates, during the period under review, no less than 3,156,826 trees ! Of these, 2,175,826 were planted in Scotland, 646,200 in England, 294,800 in Ireland, and 40,000 in Wales. It is, of course, not easy to get absolutely complete returns, but those we give are well within the mark, and prove that there is at least some set off against tree felling and the gradual increase of bricks and mortar in these islands.

ABOUT A STUMP.—Alex Bulley and Joseph Gamanchee own land near Anoka, Minn., which lies along the Missisippi river. On this land, at the water's edge, is a stump. The Rum River Boom Company tied to this stump a raft, containing 300,000 feet of logs. Prompted by some meanness, the owner of the land cut the raft loose, and let it go wild down stream. The company sued for damages, and the plaintiff's attorney held that, inasmuch as the stump belonged to the defendant, they had a right to cut the raft loose, and moved the dismissal of the case. The court failed to see the matter in that light, and the defendants were held to the court above in their own recognizances.—*Northwestern Lumberman.*

C. BRITTON, Lindsay, Ont., writes :—"I have much pleasure in recommending Baxter's Mandrake Bitters in all cases of Jaundice, Biliousness, Sich Headache and Liver Complaint, for they have given universal satisfaction, and I have sold more of them the past season than any other one patent medicine."

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FORESTRY CONGRESS,
MONTREAL MEETINGS,
AUGUST 21st and 22nd, 1882.

PATRON :
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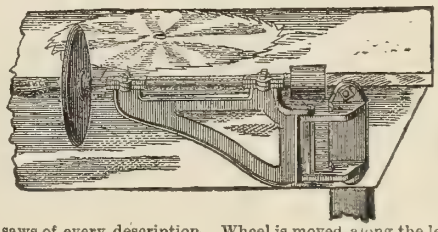

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CEDAR PAVEMENTS.

Says the *Northwestern Lumberman* :—Cedar pavements seem to grow in popularity, and are being adopted in many cities where they have been heretofore unused, and yet they are not altogether in favor. The following remarks are made concerning wood pavements in London:

"The character of the wooden pavements may be known by the occupants of carriages in driving over them. Where the blocks are laid upon sand and boards, the vibrating and drumming effects on nerves and ears are most distressing. When laid with open joints the surface becomes rapidly worn and uneven; and when laid upon an imperfectly formed or weak foundation, the surface also becomes uneven, alternating hills and holes, retaining dirt and wet, and so tending more and more to the destruction of the road. Blocks of wood unexceptional in character, form and dimensions of material, laid hard on an exceptionally good cement concrete foundation, close-jointed, but without the felt bedding and jointing, have a disagreeable jarring effect, though in a less degree than the examples previously described. Some of the wood-paving companies must have been very stupid, and also very difficult to teach, or they would have learned, by their failures, sooner than they appear to have done, and we should not then have seen most important main thoroughfares blocked for weeks at a time by the pulling up of the entire wood construction to begin again as from the beginning, and this process more than once over."

In response to a question raised at Toronto, as to the relative value of old and young cedar, for street paving blocks, a lumberman addressed the following to the *Globe*:

"If you will kindly grant me a little more latitude I would like to make a few observations with respect to your views expressed as to the merits of old cedar *vs.* young cedar for roadways. If I am right, I take it that you assume that the young cedar is closer grained than the older wood, and therefore calculated to wear longer, and may therefore make the best roadway. If your theory is correct, then those whose duty it was to decide as to the most suitable blocks for our roadway are still wrong, inasmuch as the older cedar would not wear evenly with the saplings, and therefore the pavement would soon present the same aspect as that on King street; namely, full of holes and ruts; and if my theory is correct—that the saplings will decay before the older wood — then they are equally at fault, as the decay will undoubtedly commence at the point where the block comes into contact with the sand used in the construction of the road bed. Any one having had experience with cedar posts knows quite well how quickly destructive sand is to cedar, and it requires but little time to determine that where small cedar, composed of fully one-third sap-wood, is firmly pressed down into sharp sand, and assisted by moisture, the process of decay will soon commence, and then the surface of the roadway, under heavy traffic, will become uneven. I am willing to stake more than my reputation that the larger the block the longer the life of the roadway, and it will amply repay our citizens to look well into this matter before committing themselves to large undertakings in this direction, and at all events, as you remark, experiments can be made which will be ultimately productive of good."

OUR FORESTS.

It is a pleasure to see that the long-continued and persistent efforts of our townsman, Mr. James Little, in the advocacy of using all possible means to preserve from waste, and use with economy the commercial woods of the country are at last bearing fruit. To his publications through the press, with regard to the timber resources both of Canada and the United States, and his forecasts of the time of its total exhaustion, under the reckless and wasteful process going on, is to be attributed the widespread interest now manifesting itself in both countries. We find a National Forestry Association, as the outcome of his oft-repeated warnings, has been inaugurated by our neighbours across the line, for the preservation of the forests and, as far as possible, keeping up the supply by tree planting. The first meeting of the association was recently held at Cincinnati, Ohio, when its name was changed to the American Forestry Congress so as to include Canada in its organization and deliberations, and its next meeting was ordered to be held on the 21st and 22nd of August next, in this city. Several of the States have also founded separate organizations with the same object in view, and in addition to his having thus aroused general attention to the subject, it must be gratifying to Mr. Little to find that the lumber papers of the West, which all along ridiculed both editorially and in contributions his pretensions as a timber statistician, have at last been forced by the current of events to acknowledge the correctness of his warnings on the subject. In an editorial of last week's issue of the Bay City, Michigan, *Lumberman's Gazette*, one of the leading lumber papers of the Union, we notice the following highly complimentary remarks, admitting the superior judgment and the acknowledged leadership of Mr. Little in the present forestry movement. The editor says :—

"Probably no name in the country is more familiar to those who are at all conversant or interested in the subject of forestry than is that of Mr. James Little, of Montreal, who has made the timber resources of this country almost a life study. For years his fluent pen has been sending forth constant warning against the wanton and unnecessary destruction of the timber resources of the country. As a timber statistician he probably stands to-day without a peer. At the opening of his crusade against the "wood butchering," which his sound judgment and discernment discovered was becoming alarmingly prevalent, his cautionary signals, sown broadcast, were viewed as wildly fallacious and were looked upon by many who had imbibed the impression that the timber supply was inexhaustible, as the effusions of a crank whose idiosyncracies had made him a monomaniac on the subject. But the future revealed the fact that his judgment was far in advance of public sentiment, and we are now brought face to face with the fact that the progressive steps of this same public sentiment have just at present advanced sufficiently to obtain faint glimpses in the book which had been continually open to his more advanced and mature judgment, and he is recognized to-day as an acknowledged leader in a movement which is destined to become one of the most important to the country's interests."

The foregoing flattering testimonials of our townsman's discernment, ability and exertions in forestry matters by our Bay City contemporary is fully endorsed by us, and the editor of that valuable lumber periodical—his hitherto opponent in lumber statistics—does himself credit in thus openly giving currency to his own admission of error, a change of view on the subject in question, and honor to whom honor is due.

We have written on this subject frequently, and shall continue to do so until the public mind is fully awakened to its importance. The depletion of our forests by reckless lumbering and ruthless fires is one of the worst evils the country has been cursed with. Chopping and burning have destroyed millions of our national wealth, with no return to anybody. For every tree that has been felled and utilized there have been half a dozen wasted. Let anyone go over a timber limit and he will see that we do not exaggerate.—*Montreal Herald.*

WEALTH IN WALNUT TREES.

Mr. C. B. Wilson, of Jacksonville, Ill., drove me out to his farm some time ago to see some black walnut trees. "These trees," he said, "were planted from the seed twenty years ago. I saw them planted." I measured these trees and they were sixteen inches through. They would saw into a timber a foot of clear black walnut boards, and then have the top, limbs and stump left. The stump itself would sell to-day for five dollars to be sawed into veneers. The boards would be worth $30. "What could you sell those trees for to timber men as they stand?" I asked. "I could sell them for twenty-five dollars per tree, and ten years from now they will be worth $50." From these facts I came to this conclusion :—A black walnut tree will pay $1.25 per year for 20 years. A thousand of them will pay $1,200 per year. Now every Illinois farmer has had it in his power to make more money off a row of black walnut trees around his farm than he can make off his farm if sowed in wheat. How can he do it? This way: A farm of 160 acres would be 10,500 feet in circumference. Now plant walnut trees four feet apart all around it and you will have 2,625 trees, which will be worth $25 apiece in 20 years. Again, a farmer can set all his sloughs, low places and all hog pastures into black walnuts. Two thousand handsome walnut trees growing on a farm would be worth $50,000 in 20 years, and would not interfere with the farm at all.

Orange raising in Florida will not pay half so well as as black walnut raising in Illinois. "How should black walnut be planted?" I asked Mr. Bates, a nurseryman at Whitehall, Ill. "The easiest way," he said, "is to strike the ground with a common hammer in the fall, make a round hole two inches deep and drop the walnut in. It will cover itself with leaves and dirt. The debris over the kernel will be so light that the sprout will have no trouble in finding its way out." "What would you do after they come up in the spring?" "I'd go around and put a shovelful of saw-dust, tan-bark, grain-chaff, or straw around each sprout. This will keep the roots damp and kill the grass or weeds around the roots. A boy could plant 1,000 trees in a day in this manner. I'd plant them twice as thick as I need them and thin them out.—*Chicago Tribune.*

Canadian and U. S. Duties.

The *Northwestern Lumberman* says :—"American lumbermen who are seeking investments in Canadian timber limits, located with special reference to bringing the logs to this country to be sawed, will do well to bear in mind the fact that the Canadian Government imposes an export duty of $1 per thousand put upon all pine and spruce logs taken out of its domain, which is equivalent, of course, to an addition of that figure to the cost of stumpage. This fact does not seem to be very well or generally understood on this side of the line. As matters now stand, Canadian pine must pay a duty anyhow before it can be used on American soil. If sawed in Canada, our protective tariff imposes a fine of $2 per thousand upon the importer; or if brought in the log the other government gets $1; the speculator taking either horn of the dilemma he may choose. There is no Canadian export duty on sawed lumber, and no American import duty on the logs.

The *Northwestern Lumberman* says :—The "Lumber Line" of the Chicago, St. Paul, Minneapolis & Omaha railway is assuming vast proportions. The efficient manager of the line, Mr. R. T. Flournoy, of St. Paul, forwards to the *Lumberman* a detailed statement of the lumber that will be shipped the present season, and it foots up in the aggregate 397,500,000 feet. Last year the Chicago, Burlington & Quincy road hauled 358,500,000 feet out of Chicago, and it is generally supposed that no other road carried as much, but evidently it will be obliged to hand over the biscuit to its contemporary.

THE TANITE CO.

The *Jeffersonian*, of Stroudsburg, Pa., says: Some months ago the Tanite Company received an order from one of the foreign governments for a solid emery wheel 36 inches in diameter and 8 inches in thickness. A wheel of this size weighs about 800 lbs., and its price is $500. A few weeks since the company received a cable order from their Liverpool House for a special machine on which to run this immense wheel. They are now constructing this machine, which is the largest they have yet built. It is from an entirely new design and will weigh when complete 2,200 pounds. When finished, illustrations of this machine will appear in some of the scientific papers.

The Company received last week an additional order from the same government for nearly $3,000 worth of solid emery wheels. Notwithstanding the recent enlargement of their works and increase of hands, they are kept busier than ever.

RAFTS AT QUEBEC.

The Quebec *Chronicle* has the following list of rafts arrived :—

July 10—Lattimer & MacNamara, staves, Woodfield.

Flatt & Bradley, staves, Point-au-Pizeau.

A. McLean, white and red pine, Dobell's (Sillery) cove.

Ross Bros., deals, New Liverpool cove.

Gordon & Co., board pine, New Liverpool cove.

Flatt & Bradley, oak, elm, ash, etc., St. Michael's cove.

McLachlin Bros., white and red pine, Cap Rouge.

July 11—Ferd. Fortier, deals, St. Appolinaire.

D. & J. Maguire, deals and boards, Cap Rouge.

Collins Bay Rafting Co., pine, etc., New Liverpool.

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to July 14 :—

	1880.	1881.	1882.
Waney White Pine	776,681	512,538	503,161
White Pine	1,145,993	1,626,058	1,444,348
Red Pine	289,446	391,542	178,784
Oak	749,384	1,142,641	551,856
Elm	582,997	642,286	334,883
Ash	153,330	231,251	143,685
Basswood	96	3,009	256
Butternut	285	330	1,725
Tamarac	15,065	4,435	1,332
Birch and Maple	525,325	121,191	258,896
Masts	....	....	33 pcs
Spars	....	....	....
Std. Staves	6.7.3.20	125.0.3.5	202.3.2.16
W. I. Staves	204.1.0.12	178.1.3.21	518.5.2.11
Brl. Staves	....	....	6.7.1.0

ALEXANDER FRASER,
Deputy Supervisor.

Quebec, 14th July, 1882.

A CORRESPONDENT of the *Northwestern Lumberman*, writing from St. Paul, Minn., says :—I see plenty of Chicago lumber passing through here going in the direction of the great Northwest. Getchell, Armour & Co., of Chicago, are shipping heavily this way.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on June 30th, 1881 and 1882, and also the Consumption for the month of June, 1881 and 1882 :—

	Stock, June 30th, 1882.	*Stock, June 30th, 1881.*	*Consumption for the month of June 1882.*	*Consumption for the month of June, 1881.*
Quebec Square Pine	46,000 ft.	421,000 ft.	50,000 ft.	158,000 ft.
" Waney Board	112,000 "	170,000 "		2,000 "
St. John Pine	3,000 "	3,000 "	—	—
Other Ports Pine	22,000 "	39,000 "	3,000 "	9,000 "
Pitch Pine, hewn	975,000 "	767,000 "	196,000 "	96,000 "
" sawn	617,000 "	471,000 "	169,000 "	105,000 "
" planks	100,000 "	85,000 "	28,000 "	43,000 "
Red Pine	9,000 "	38,000 "	5,000 "	2,000 "
Dantzig, &c., Fir	71,000 "	124,000 "	42,000 "	72,000 "
Sweden and Norway Fir	4,000 "	9,000 "	—	—
Oak, Canadian	162,000 "	331,000 "	52,000 "	44,000 "
" Planks	76,000 "	142,000 "	58,000 "	36,000 "
" Baltic	49,000 "	90,000 "	4,000 "	6,000 "
Elm	30,000 "	27,000 "	3,000 "	—
Ash	5,000 "	8,000 "	4,000 "	2,000 "
Birch	22,000 "	100,000 "	42,000 "	23,000 "
Greenheart	54,000 "	48,000 "	20,000 "	8,000 "
East India Teak	83,000 "	8,000 "	13,000 "	—
Quebec Pine Deals	4,777 stds.	6,980 stds.	1,801 stds.	1,423 stds
" Spruce "				
N. B. & N. S. Spruce Deals	7,328 "	13,658 "	6,810 "	7,143 "
" Pine "	260 "	879 "		
Baltic Deals	1,601 "	4,341 "	719 "	689 "
" Boards	73 "	300 "	51 "	100 "
" Flooring Boards	2,726 "	3,652 "	545 "	1,031 "

Chips.

THE mills of Nashville, Tenn., will run during the night, while the hot weather lasts.

OWENSBORO, Ky., has a curious freak of nature in the shape of a catalpa branch growing out of the side of a locust tree.

A SALE of 700,000 feet of black ash lumber was made at Rochester, N.Y., recently, at $16 a thousand. Another sale was reported of 200,000, at $15.

THE Duluth *Lake Superior News* of July. 13th says:—There are one hundred cars of lumber on the docks here awaiting shipment to Winnipeg, owing to the scarcity of cars.

AN exchange says that forty thousand acres of timber land in the Duluth district, worth $40 an acre, have been stolen from the Government by speculators at $1.25 an acre.

THE Michigan Iron Works, at Cadillac, Mich., is to construct one of its new style engines and 50 logging cars for Nicholas, Church & Co., of Greenville, Mich. The contract amounts to $7,000.

A SHIPMENT of lumber from Shreveport, La., was made lately to the state of Chihuahua, Mexico, 170 miles south of El Paso. The cars were loaded at the mill grounds, and were run directly to their destination—a fact worthy of notice in latter day American-Mexican progress.

THE Chicago *Northwestern Lumberman* says: Charles Merrill, of Bay City, Mich., has been to the Spanish River district, Ont., for the purpose of locating a mill, which Folsom & Arnold, of Bay City, will build for him the coming fall. Mr. Merrill has recently purchased pine land on Spanish River.

AT Oswego, N.Y., E. H. Barnes, who manufactures box shooks, cuts up 13,000,000 or 14,000,000 feet every year in that line of manufacture. A. W. Wright, a manufacturer of sashes, doors and blinds, uses up from 2,000,000 to 3,000,000 feet of lumber in his business, keeping 75 hands busy all the time.

THE Midland *Republican* says:—David Ross is superintending a run of 1,500,000 feet of logs for W. W. S. Sutherland, of East Saginaw. They are now passing Midland and make a continuous string in the river over 20 miles long. Mr. Ross also has charge of a run from the Chippewa and Pine river which started out last Friday.

THE ship *Syren*, which recently loaded deck plank and spars at Seattle, W. T., for Bath, Me., consigned to Goss & Sawyer, had 130 sticks on board. The ship could not stow as many spars as was expected, so the deck plank, some of which were of great length, were taken as small stowage. The *Syren* received $15,000 for the voyage.

THE jam in the St. Croix, Minn., is assuming formidable proportions, extending now to or above Marine. The logs are seemingly inextricably mixed and piled seven or eight feet high. Communication is kept up, however, with the up-river towns, the freight and passengers being conveyed around the jam in wagons and carriages. It will probably be several weeks before the river is clear of logs.

THE Ottawa *Citizen*, of July 11th, says:—It will be upwards of four weeks before Hurdman's drive on the Petewawa will be out of the river. Last Thursday evening the drives of Messrs. Perley & Pattee and Captain Young were at the last slide, Petewawa, and are out now. The last of Messrs. Perley & Pattee's will be out this week. The rafts of Messrs. Perley & Pattee and Young were ready for Quebec yesterday.

THE Quebec *Chronicle*, in an article on "The Future of Quebec," says:—The timber trade is no longer a staple industry of Quebec, nor are we building wooden vessels to sell in the British and other markets. The fact is, times have changed. The steamer and the ironclad have succeeded the old-fashioned square-rigged wooden-wall. With regard to timber, the trade has also changed materially. Dressed lumber is still sold, and there are shipments of it from this port, but the competition is so brisk, and the number of markets so many, that the profits have declined materially. Still, it is by no means yet a lost industry entirely.

WHEN the Sturgeon Bay, Wis., canal was dug, the greatest depth excavated was 45 feet. Down there a red cedar was found and hoisted out, and the stump of it now lies on the bank.

THE Liverpool correspondent of the *Timber Trades Journal* says the idea that the importation of Quebec yellow pine will be comparatively small for this year, gains strength daily, looking at the high prices demanded there, and the improved quality of much of the pitch pine now imported, will tend greatly to divert attention from the former wood to the latter, especially as there is so great a difference in the market values.

THE *Timber Trades Journal*, of July 8th, says:—We notice that last year the *Hovding* was a day later from Quebec than she was this season, but it is nevertheless a somewhat singular coincidence that her arrival should be so near to time two years in succession, and seems to imply that the spring fleet will not be so late as was expected. It is true last year the *Progress* had previously arrived, but she anticipated the first-named ship by only a few hours.

THE business of building tenement houses in sections, ready for transportation and erection at the point of destination is on the increase, and proving eminently successful. A firm in Quebec has recently shipped in sections five hundred wooden houses to Panama, where they are to be erected and used by the contractors of the canal being constructed. The same firm has also manufactured a number of houses for shipment to various points along the line of the Canada Pacific railroad.

A CORRESPONDENT of the Parry Sound *North Star* says:—I was surprised to find that the "sills" or "stringers" being supplied for the new sidewalk on Seguin street were mostly hemlock timber. Now anyone who has had even a small experience with hemlock knows that it will not last in that position more than two or three years. Why not put in cedar and make a good job while they are about it? I am sure there is plenty of good cedar to be got. White pine itself would be far preferable to hemlock.

THE Emerson *International* says:—Fifteen miles east of the Red River at Emerson, the line of continuous forest is reached—woods of almost impenetrable thickness, comprising all the varieties of the Lake Superior region. West of the Red River to the Pembina Mountain the various streams which drain this region sustain a fine growth of oak, poplar, elm, cottonwood and the ash-leaved maple, Southern Manitoba being much more heavily timbered than the central or northern portion. Timber culture on the prairie is already carried on to a considerable extent, and in a few years quite a large quantity will be raised on "Tree Claims."

A DESPATCH from Halifax, N. S., dated July 12, says that D. C. Connor, who for two years has been doing rather an extensive business at Kingston station, Kings County, as general merchant, hotel keeper and lumberman, has failed with estimated liabilities of about $40,000. Connor has been for some years employed by a large Halifax firm in getting out logs for their mill at Bridgewater. About a week ago he received a cheque from the above firm for ten or twelve thousand dollars, with which to pay the men employed by him during the winter. He drew the money from the bank at Bridgewater, and instead of paying the men, drove to Annapolis, and, it is thought, left in the steamer for the United States. Several local men lose heavily.

THE Montreal correspondent of the *Canadian Manufacturer*, under date of July 5th, says:—Within the past ten days or so, three sailing vessels have left port with deals for West Hartlepool, England, one for London, and one for Cardiff. Two vessels have also left with cargoes of lumber for South America. Shipping culls are scarce, and sales are reported at $14 in large lots, and at $15 to $16 for jobbing lots from yards. The sale of a lot of ash for the American market is reported at $20, and sales of red and white pine have taken place at $20 to $25, a lot of very choice bringing as high as $30 per M. feet. There is still a good demand for white pine for Winnipeg, several car loads having been shipped to that city during the week. The yards are being filled up with new season's hard and soft lumber, and prices remain generally firm.

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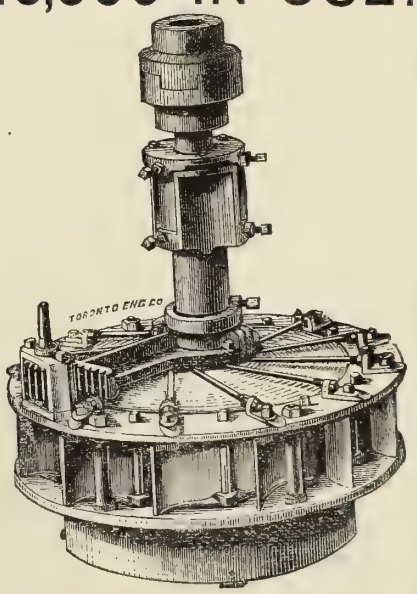

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Market Reports.

TORONTO.

From our own Correspondent.

JULY 24.—The building trade here still continues excessively dull, and as a consequence the local sale for all kinds of building material is dull also, in fact one well stocked retail yard would easily meet all the demands of the retail trade at present. Of course it is usual to have July and August quiet months, but there are no present indications of anything much better for the remainder of the season ; still, this will not materially effect the sum total of our timber sales at the close of the season, if our trade with the other side continues good, and those who are generally well informed on such matters feel confident that our shipping trade for the remainder of the season will be brisk, with a very light stock left to carry over the coming winter. Since writing you last considerable lumber of the lower grades has passed over our docks, and after a few weeks more age, to fit it for market, considerable of the higher grades will go forward, and vessel owners are anxiously waiting for cargoes, although the present rate of of freights does little more than pay expenses, and in some cases not that.

There are a few points which it would be well for our manufacturers to note if they wish to cultivate trade with the American markets, and to obtain good prices for their stocks, and that is to manufacture their lumber as carefully as the American mill men. 2nd, to sort it as carefully. 3rd, to save it free of staining. Quite a number of our large mills are behind in this respect, as well as the smaller ones. The point seemingly arrived at by many of them is to see how many logs they can put in at one end of the mill and send out of the other, and then to crown all, pile up mill culls with the higher grades, and in numerous cases so closely piled as to sap-stain and so make mill culls, of what otherwise would be good dressing or better. The writer could point out, if necessary, some notable exceptions in those particulars, but, I am sory to say that exceptions they are, why not then apply the remedy ? Make less lumber and make it well, sort it carefully, so that a would be purchaser can see your stock as it should be seen, and lastly pile at once from the saws and pile openly and orderly each length on on its own pile.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ₱ M	2 50@3 00
XX sawn shingles	2 00
Sawn Lath	2 25

MONTREAL.

From our own Correspondent.

JULY 24.—Trade has been fair since last report although not quite so rushing as in May and June, purchasers are only buying for immediate wants, which on the whole are pretty heavy as there are a large number of buildings going up both in the city and in the neighborhood. There has also been a good demand for hardwood from the United States. Harvest prospects are good and if the grain is brought this way for shipment a good business in lumber is expected to be done on the wharves. A good deal of lumber is arriving and prices in Ottawa keep well up ; all the mills there are running day and night and turning out a great deal of lumber which is selling very fast and stocks do not accumulate much. In Quebec the square timber trade is rather slack, as they have no vessels to take the timber away. The supply in England is rather small, but sufficient for present demands, which are likely to improve if Eastern matters were a little more settled. Prices in our local market are firm, and we note an advance on some. We quote ex yard as follows :

Pine, 1st quality, ₱ M	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M	14 00@16 00
Pine, 4th quality deals, ₱ M	11 00@12 00
Pine, mill culls, ₱ M	10 00@12 00
Spruce, ₱ M	10 00@13 00
Hemlock, ₱ M	9 00@11 00
Ash, run of long culls out, ₱ M	20 00@25 00
Bass, " " ₱ M	17 00@20 00
Oak, ₱ M	40 00@50 00
Birch, ₱ M	20 00@25 00
Hard Maple, ₱ M	25 00@30 00
Lath, ₱ M	1 30@ 1 40
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

SHIPMENTS.

The barque "Cupid" which sailed from this port on the 23rd of June with 541,213 feet of lumber for Monte Video, went ashore on the Manicoggan shoals, but after throwing her deck load overboard was got off, and has returned to Quebec to discharge and repair, after which she will again proceed on her voyage. The damage done to her hull was slight. The shipments from this port since the 8th inst., were as follows :—To St. Johns, Newfoundland, 122,985 feet of lumber, and 212 M. drum staves ; to St. John, N. B., 10,879 pcs deals ; to Cardiff 13,384 pcs deals ; to Grimsby 6,724 pcs deals, 105 standard deal ends ; to London 11,730 pcs deals. The shipments to the river Platte, since the date of last report, were by two vessels carrying 656,473 feet of lumber. The total shipments to South America since the opening of navigation to date were 2,352,820 feet, against 2,817,263 feet for the same period of 1881 being a decrease of 474,443 feet. There are 5 or 6 vessels now loading here for South America. Freights are steady but unchanged.

LIVERPOOL MARKETS.

Business is quiet and prices have favoured buyers ; 1st quality Quebec deals, (Pine) are quoted £19 @ £20 10s. per standard ; 2nd quality do, £13 10s. @ £14 10s ; 3rd quality do, £9 10s. @ £9 15s.

CORDWOOD.

The market continues to be well supplied both by river and road, but the demand continues to be very slack, and at the present high prices it will likely be soon superceded by coal. The contract for the court house supply has not been given out yet. We advance the price of beech, other kinds of wood are unchanged. We quote ex cartage :—

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	6 00
Short "	5 50
Tamarack	4 50@5 00

OTTAWA.

From our own Correspondent.

JULY 25.—The large trading in pine lumber now going on in the American markets will soon decrease the stocks on hand, and consequently our yards will have to be resorted to for a replenishment. Sales so far this season have not been as numerous as other years. Shipping continues somewhat lively, and last years orders are in most cases nearly fulfilled. American buyers are on the market ; they have not done much, however. Quotations are about as follows :—

Pine, 1st quality, per 1000 feet	$ 35.00	to	$ 40.00
" 2nd " " " "	20.00	to	30.00
" Mill culls " " "	10.50	to	12.00
" Shipping " " "	15.00	to	16.00
" Pickings " " "	20.00	to	26.00

Mr. John Macdonald the superintendent of the slides at the Chaudiere, who is so well known by the lumbermen of this district and elsewhere, has been superannuated by the Government. He has held the position for a great many years, and was a trustworthy and courteous servant. When he first took office he witnessed and inspected the now rarely seen giants of the forest, rafts of 75 foot average. In this connection it has been remarked as an indication of the rapidly increasing scarcity of pine trees in the limits on the Upper Ottawa and its tributaries, of a size to make square timber, that with a few exceptions all the square timber passing through the slides here will not average 60 cubic feet per piece, a great falling off. It is more difficult, lumbermen say, to get a raft of timber 60 feet average to-day than it was a few years ago to get one of seventy or seventy-five.

Messrs Grant & Miller have a splendid raft running the slides at present ; as have also Messrs. Perley & Partee, and Young & Bronson. Two rafts of Mr. Oliver Latour, are yet to come down. Four have already passed the slides.

The following rafts passed through the works mentioned during the week ending 22nd July :

CALUMET SLIDES.

Rafts.	*Owners.*	*Cribs.*	*Pieces.*
1	J. O. B. Latour	93	2,525
1	D. Moore	83	1,941
1	J. & B. Grier	80	1,856
3		256	6,322

PORTAGE DU PORT.

Rafts.	*Owners.*	*Cribs.*
1	Young & Bronson	64
1	Perley & Pattee	142
1	Richard White	120
3		326

LEFT OTTAWA SINCE 18TH JULY.

Rafts.	*Owners.*	*Cribs.*	*Peices. W. P.*	*R. P.*
1	Wm. Mackey	110	2,275	357
1	Wm. Mackey	122	3,273	5
1	B. Caldwell & Son	102	2,661	135
1	Oliver Latour	63	1,181	614
1	David Moore	84	97	1,969
5		478	9,487	3,071

THROUGH GATINEAU BOOM SINCE 18TH JULY

Owners.	*Saw-logs.*	*Sq. Pine.*	*Ft. Pine.*	*R. R. Ties*
G. B. Hall & Co.,	2,609	136	684	.....
W. C. Edwards & Co	1,168	....	....	.....
Rathburn & Son	....	....	....	21,545
	9,777	136	684	21,535

ST. JOHN, N. B.

From our own Correspondent.

JULY 22.—Owing to the low prices still ruling in Great Britain, our lumber market still remains dull, and deals that are arriving (that are not already contracted for) are selling slowly at about $9.50 per M, being about $1.00 less than they were one month ago.

Freights still remain firm at higher rates, but very few vessels have been chartered, owing to the great advance in grain freight in New York, which is drawing most of the available tonnage there.

In the present position of the maket it is difficult to give reliable quotations of freight, but the rates talked of are as follows :—

Liverpool	60s. 3d. c. d.
Bristol Channel	60s. 0d. 62s. 6d. c. d.
Ireland	60s. 0d. to 67s. 6d. c. d.

VESSELS IN PORT THIS DATE.

Belle O'Brien, 1,847, Liverpool, 52s. 6d. c. d.
Arizona, 1,100, Cardiff, 55s. c. d.
Clarence, 1,032, Bristol Channel, 55s. c.d.
Lake Simcoe, 344, Troon, 57s. 6d. c. d.
Belle, 480, Dundalk, 60s. c. d,
Assyria, 728, Warrenpoint, 56s. 3d. c. d.
Young Eagle, 534, Cork or Dublin, 60s.
Argus, 232, Wexford, 67s. 6d. c. d.
Adria,, 194, Ballywain, 67s. 6d: c. d.
Harold, 189, Ireland, 67s. 6d. c. d.
Quaco, 186, do, 68s. 9d. c. d.
Lord Derby (3) 1,132, United Kingdom, 55s. c. d.
G. B. Doane, 941, Bordeaux, 58s. c. d.
Gloire, 1,138, do, 55s. c. d.
New York, 543, St. Nazaire, 56s. 3d. c. d.
Lottie Stewart, 742, unchartered.
Lepreaux, 719, do.,
Calliope, 1,202, do.,

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881. *Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*	1882. *Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
95,708	768	2,306	105,279	359	3,890

VESSELS LOADING THIS DATE.

1881. *Ships.*	*Tons.*	1882. *Ships.*	*Tons.*
39	28,600	21	14,131

CHICAGO.

JULY 22.—The *Northwestern Lumberman* says: —Notwithstanding the large amount of lumber reported, the cargo market at Franklin street has had one of the slimmest weeks of the season. The largest fleet of the week was 20 vessels on Monday, and while other days have shown 10 and 12, the rapidity with which they have been moved has left the docks bare, or nearly so, during the largest part of the time. The Monday fleet was all placed before noon, and the few cargoes on hand Tuesday morning were bought up so early that at nine o'clock no less than five tugs were at work taking out their tows at the same moment. This statement may be interpreted as giving an index of the feeling on the part of the buyers, indicating, as it does, a readiness to take all desirable offerings at full quotations, and even a slight advance. Bears and bulls agree, for once, that while on ordinary offerings perhaps no actual advance is to be noted, desirable cargoes will bear quoting at 25 to 50 cents higher, while a generally firmer feeling is more apparent than actual advances in values.

CARGO QUOTATIONS.

Short dimension, green	$10 50@11 25
Dry	10 75@11 50
Long dimension	12 00@13 50
Boards and strips, No. 2 stock	11 25@15 00
No. 1 stock	16 00@20 00
No. 1 log run, culls out	17 00@23 00
Standard shingles	2 50@ 2 60
"A"	2 65@ 2 95
Clear	3 15
Lath	2 25

Receipts and stock on hand of lumber and shingles, etc., for the week ending July 20, as reported by the Lumberman's Exchange :—

RECEIPTS.

	Lumber.	*Shingles.*
1882	63,360,000	15,842,000
1881	60,682,000	32,526,000

FROM JANUARY 1 TO JULY 20 INCLUSIVE.

RECEIPTS.

	Lumber.	*Shingles.*
1882	894,079,000	396,688,000
1881	764,589,000	344,795,000
Inc	129,490,000	51,793,000

LAKE RECEIPTS TO JULY 19.

1882	748,747,000	363,264,000
1881	627,590,000	272,603,000
Increase	121,157,000	95,661,000

STOCK ON HAND JULY 1.

	1882.	1881.	1880.
Lumber	443,039,546	352,391,329	347,346,419
Shingles	223,839,500	142,726,000	144,095,000
Lath	26,691,152	30,764,312	29,733,995
Pickets	1,902,187	3,170,228	795,360
Cedar posts	154,148	120,559	111,655

BOSTON.

JULY 22.—The *Journal of Commerce* says :—The demand is of a steady character, but at the moment the tendency of general prices is to easiness. The inquiry is mainly for the supply of pressing wants. Stocks in the hands of dealers are only moderate, and with the promise of a good fall demand, it looks as if values would eventually be well sustained.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ₱ M	$55 00@83 00
Pine, fourths	50 00@60 00
Pine, selects	45 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 18@00 22
Pine boards, 10-in.	00 26@00 32
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ₱ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@18 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1½-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2¼x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ₱ M	35 00@40 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@70 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	38 00@45 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	36 00@40 00
Maple, Canada, ₱ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 00
" 2nd quality	0 00@ 4 50
" extra, sawed, pine	0 00@ 4 40
" clear, "	0 00@ 3 40
" cedar, mixed	0 00@ 3 25
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 25
Lath, hemlock, ₱ M	0 00@ 1 62
Lath, spruce, "	0 00@ 1 87
Lath, pine, "	0 00@ 2 25

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

OSWEGO, N.Y.

Three uppers	$46 00@48 00
Pickings	36 00@38 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	12 00@15 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@38 00
1¼ inch	35 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1½ inch mill run	14 00@20 00
" " " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	3 75@ 3 90
XXX, 18 inch, cedar	3 00@ 3 55
Lath	@ 2 25

LIVERPOOL.

The *Timber Trades Journal* says :—"The importations of spruce deals continue to come forward freely, but the market is not affected thereby, for there is evidently a disposition to store cargoes rather than submit to any further decline in prices, and, in point of fact, several cargoes are being stored on account of the shippers, those which are being sold as they arrive being principally cargoes brought by steamers under charter with a few days to unload and heavy demurrage.

LONDON.

The *Timber Trades Journal* says :—"Yellow pide is still moderately represented, though the expected arrivals from Quebec will probably add considerably to the stocks here. There is no telling, however, so much now goes overside that the mere fact of recording the arrival in dock of a cargo does not necessarily imply that it will add to the stocks, though it is not an unfair inference to draw. Of the Ocean King's cargo, we understand a very large proportion was delivered to lighters, and would not come into the dock stocks at all."

GLASGOW.

The *Timber Trades Journal* says :—"A public sale of deals was held here on the 29th June, by Messrs. Allison, Cousland & Hamilton. The attendance was fair, and a good portion of a fresh-imported cargo was disposed of.

At the close of the half-year stock-taking, chiefly by the largest consumers, is general, and on that account probable sales are not so heavy."

CARDIFF.

The *London Trades Journal* says —"There is still a moderately good demand for the Bristol Channel, and local merchants are seeking tonnage in average quantities from the Baltic and White Seas. Several cargoes are also on the way from Canada, and some of them are overdue. Notwithstanding this, the trade for the heavy classes of timber remains not so bright as could be wished, and local traders are not benefitted to the extent which a more active enquiry would ensure.

STOCKS ON THE CLYDE.

The following is a comparative statement of the leading wood goods on hand at Clyde Ports, 31st March and 30th June, 1882 :—

(Loads, 50 cub. ft.)

	30th June.	31st March.
Quebec Waney boardwood	7,007	11,844
" yellow pine timber	7,082	15,081
" red " "	3,682	5,311
" elm "	2,398	3,409
" oak "	2,772	4,330
" ash "	280	502
Birch, all sorts	114	364
Pensacola pitch pine hewn	11,929	9,382
" " sawn	16,968	10,157
" " planks	1,102	1,659
Demerara greenheart	2,091	440
(St. Petersburg standards, 165 cub, ft.)		
Quebec yellow pine deals	1,796	2,400
" red " "	149	191
" spruce " "	349	167
Lower Port Spruce "	910	477
" pine "	234	475

EXPORTS FROM NEW YORK.

Statistics of exports of lumber from New York show that the quantity during the first six months of 1882, is less by 8,424,237 feet than during the same period of 1881. Exports during June were as follows :—

	FEET.
To West Indies	2,572,781
South America	2,589,024
East Indies	613,721
Europe	20,500
Total	6,796,926
Months of 1882, previous	26,756,669
Total since January 1, 1882	33,553,595
Same time in 1881	41,977,832

TIMBER MOVEMENTS.

The Ottawa *Citizen* says :—During the week ending the 15th July the undermentioned timber passed through the works stated :—

THROUGH CALUMET SLIDES.

Rafts.	*Owners.*	*Cribs.*	*Pieces*
1	David Moore	78	1,920
1	Grant & Miller	66	1,616
1	Perley & Pattee	142	3,250
1	T. & W. Murray	69	1,736
1	Young & Bronson	64	1,738
1	Richard White	120	3,000
6		539	13,460

LEFT MADAWASKA SLIDES ON 15TH JULY.

Owners.	*Sawlogs.*
Gilmour & Co	250
J. R. Booth	24,000
E. B. Eddy	1,200
	25,450

THROUGH THE CHATS SLIDE SINCE 15TH JULY.

Rafts.	*Owners.*	*Cribs.*
1	Wm. Mackey	110
1	B. Caldwell	115
2		225

LEFT OTTAWA SINCE 15TH JULY.

Owners.	*Cribs.*	*Pieces.* W. P.	R. P.	*Mx'd*
J. B. Dickinson	138	1,769	936	
A. & P. White	86	1,790	221	
do	156	3,724	86	
Sereny & Fraser	81	1,480	930	
McCoshen & Fraser	127	3,163	59	
R. Campbell & Son	116	86	1,577	1,227
Costello Bros	86	1,579		1,694
R. Campbell & Son	127	2,224	1,112	11
R. & W. Conroy	108	2,287	122	
C. & W. Mohr	89	1,412		808
R. & W. Conroy	87	1,779	317	
Fraser & Curry	168	4,158	33	78
B. Caldwell & Son	116	2,686	112	
Oliver Latour	94	1,181	614	
	1,579	30,318	6,119	3,818

THROUGH GATINEAU BOOM SINCE 10TH JULY.

Owners.	*Sawlogs.*	*R. R. Ties.*
G. B. Hall & Co.	14,530	
W. McClymont & Co.	4,349	
Hamilton Bros.	5,633	
J. McLaren & Co.	12,985	
W. C. Edwards & Co.	1,071	
Gilmour & Co.	2,374	
H. B. Rathburn & Son		16,004
Hebron Harris		3,059
	40,942	19,063

THROUGH CARILLON DAM WEEK ENDING 15TH JULY.

Rafts.	*Owners.*	*Cribs.*
1	A. McLean	267
1	Barnett & McKay	134
1	H. Franklin & Son	142
1	Wm. Craig	26
1	John Winsor	40
1	Alex. Fraser	59
1	McLean & Co.	84
1	Wm. Mason	80
1	Bell & Hickey	59
9		891

RAFTS ARRIVED.

The Quebec *Chronicle* of July 21st gives the following lists of rafts &c., arrived :—

July 15.—Collins' Bay Co., oak, etc., sundry coves.

D. D. Calvin & Co., oak, pine, etc., Gilmour's cove.

Barnet & Mackay, red and white pine, Cape Rouge.

Fraser & McCoshen, red and white pine, St. Lawrence Docks.

D. D. Calvin & Co., oak, pine, &c., sundry coves.

July 17.—A. McLean, pine, etc., Gilmour's Indian cove.

July 20.—A. McLean, white pine, etc., In-Cove West.

A. Fraser, white and red pine, St. Lawrence Docks.

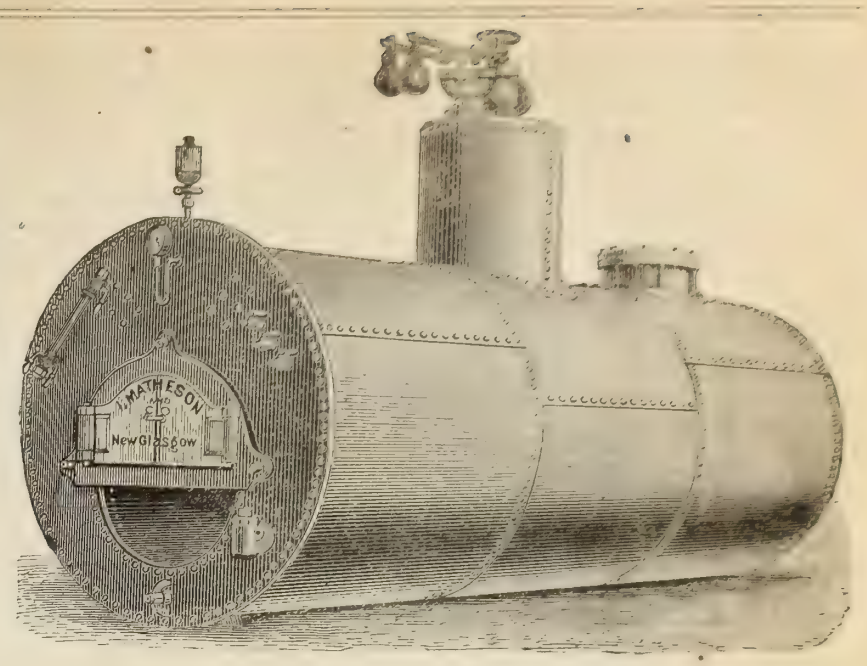
Wm. Simpson, lathwood, Q. Warehouse Co.

R. White, white pine, etc, Dalhousie cove.

Cook Bros., waney white pine, elm, etc., St. Michael's cove.

Bush Fires.

The Campbellford *Herald* says every municipality ought to adopt the action of the Brock township council, the members of which recently passed a by-law for regulating the burning of brush, stumps, etc. The enactment provides that no stump, wood, logs, brush, straw, shavings, or refuse, shall be set on fire by any person or persons in the open air within the municipality in or during the months of July and August in any year; nor at any other time or times during the year until after eight days' notice has been given to the owner or occupant of the adjoining property. Any person contravening the provisions of this by-law shall, in addition to any damage which may occur, be liable to a fine of not less than $2 or more than $50 upon conviction before a Justice of the Peace.



ACADIA FOUNDRY
I. MATHESON & Co ENGINEERS & BOILER MAKERS, NEW GLASGOW, N.S.

JONES & SON,
Wholesale Lumber & Timber Dealers
39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut
And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.
Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.
L7

Rapid Building.

The rapid increase of population in Manitoba has stimulated the inventive geniuses of the Dominion to contrive houses that may be portable and quickly put up. L. Forest, of Belleville, Ont., has planned one that is in three foot sections, and dovetails together. A house, for a hotel or boarding establishment, has been put up at Winnipeg, over 100 feet long, two stories high, and devided into apartments sufficient to accommodate 250 guests. The foundation was laid on Tuesday and the house was completed Thursday afternoon following. A modern Rome could thus be built in a day, with lumber and hands enough. A company has been formed at Belleville to manufacture the sections for these ready-made houses.

The Emerson *International* of July 20th says : There are now twenty-three million feet of logs in Red River floating down to Winnipeg. Eight million feet of these logs are from the Otter Tail River (the source of Red River) and the balance from Red Lake River. The rear of the Otter Tail drive passed Fargo some days ago, and the other drive, in charge of 120 men, is between Emerson and Grand Forks. Logs commenced passing here on Tuesday of last week, and men with pike poles are constantly employed at the bridge, guiding the logs between the piles of the temporary structure, so as to prevent a jam. The logs belong to Winnipeg mill owners, who purchased them at $17 per M feet. Carney & Watson, proprietors of the Emerson saw mill, endeavoured to secure some of them, but were unsuccessful.

LEATHER BELTING.

Chipman, Renaud & Co.
MANUFACTURERS OF
LEATHER BELTING.
FIRE ENGINE HOSE
LACE LEATHER. &c.
124 & 126 Queen St.
MONTREAL

PAPER FROM WOOD.

The *British and Colonial Printer and Stationer* gave, in a recent issue, a description of a new process for treating wood to obtain fibre suitable for papermaking, invented by Mr. Karl Daniel Ekman, of Sweden. The invention consists in boiling wood under a pressure with a solution containing sulphurous acid and magnesia in certain proportions, and under certain conditions; also in blowing off gas and steam during the process of boilin .

The writer describes the process as applied to Swedish white fir of good quality and fine grain previously freed from bark and knots, and cut into pieces of suitable form and size, and subsequently crushed between rollers so as as to render the wood easily permeable by the liquid solution in order to produce fibre of the best quality for papermaking; but the mode of preparation may be varied. White fir and trees of the same order are especially suitable, as they give long and strong fibre, very clean, and similar in its properties for papermaking to that of flax; and this kind of wood is comparatively cheap and abundant in many countries.

The raw material of wood is selected with more or less care, according to the purpose for which it is required, but when a superior quality of pulp has to be produced, all exceptionally resinous and hard pieces of wood, as well as those damaged by rot, are thrown out. The fibre resulting from the treatment of the wood is suitable for good ordinary printing paper, and may be made suitable for superior papers by means of treatment with bleaching powder. The resulting fibre may be suitable for coarser kinds of paper, such as millboards, papier mache, and similar materials. The invention can be easily applied to other kinds of wood besides the white fir.

GUMPTION.

Mr. Edward Atkinson, of Boston, recently addressed the members of the Golden Branch Society, of Phillips Exeter Academy, upon "What Advantage Does an American Boy Possess?" Mr. Atkinson urged that the young who are soon to become the workers and controllers in the business of life should be careful not to become one sided, and not to lose the "gumption" which every Yankee boy ought to possess, and which does not form a part of the curriculum of the school or college, but is developed or lost in that part of the process of education which is outside the books and independent of the teacher. Gumption is that power of applying the work of the hand and the brain together under the quick application of the will, which makes a boy or man ready for any emergency, and enables him to decide at a glance, or with a single thought, the right way of doing something. In the old time, although the organization of the schools was not as perfect as it is to-day, and although the teachers were perhaps not as competent as those of modern time, while the variety of instruction was far less, there was a no less number of able and capable men among the graduates of schools and colleges in proportion to the whole number of pupils than there is to-day. The necessity which was imposed on the rich and poor alike to do some part of the work of life with their own hands, while they were attempting to develop their mental powers, worked in the direction of that readiness and versatility which we call gumption. It is obvious to men who have been engaged from very early years in the active work of life, and have been charged with the duty of selecting men to fill important places, that the number of school or college graduates who have been adequately prepared to apply their instruction to immediate use constitutes a painfully small proportion of the whole number. It may be admitted that the only true result of school and college training is to enable a young man to know when and how to begin the real education which must form part of his life, and which will not end except with life, but it ought not to happen that the method of preparation is so ill-advised that it disqualifies the graduate in a measure for the work he must do. Mr. Atkinson advocated for boys and young men in school and college an organized system of sports as a means of developing manual dexterity, urging the development of hand and brain together. His address throughout was an argument in favor of students endeavoring to acquire not only that knowledge that will enable them to design, but the gumption that facilitates the ready application of knowledge to the execution of design in whatever work may demand their attention and effort.

TREE BURIAL IN NEW ZEALAND.

The recent fall of an enormous puketsa tree near Opotiki, New Zealand, disclosed the fact that the hollow interior from the roots to the ground, had been filled with human bodies. A confused heap of human skeletons burst out of the butt of the tree when it fell. A local paper says:—"A more extraordinary sight than this monarch of the forest lying prone and discharging a perfect hecatomb of human skeletons can scarcely be conceived. Some are nearly perfect, while others are mixed up in a chaotic mass of heads, hands, feet and arms, indiscriminately. All the Maoris here seem to have been quite unaware of this natural charnel house, and declare that it must have happened long before their or their father's time. Indeed, the appearance of the tree fully justified the supposition that it must have been some hundreds of years since this novel family vault was filled with its ghastly occupants."

LUMBER FOR EMIGRANTS.

The *Mississippi Valley Lumberman*, of Minneapolis, says of the immense influx of emigrants now in progress:—The tide of European emigration which is pouring into this country this spring far exceeds anything which has ever occurred in our history. Northern Europe furnishes the bulk of these new comers, and as emigration preserves its latitude, the northwest is receiving the lion's share of these people who are to help to develop the resources of this new world. Minnesota, Dakota and Manitoba will catch more than any other three states. This is especially important to the lumbermen of this country. Every family of emigrants coming in means more lumber to build houses, barns, fences, etc., to be sawed. This marvelous growth in population must be met by an equal enlargement of the lumber manufacturing. The chief difficulty now seems to be in finding means to get the lumber carried to these people.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

EARS FOR THE MILLION

Foo Choo's Balsam of Shark's Oil

Positively Restores the Hearing, and is the only Absolute Cure for Deafness known.

This Oil is abstracted from peculiar species of small **White Shark,** caught in the Yellow Sea, known as CARCHARODON RONDELETII. Every Chinese fisherman knows it. Its virtues as a restorative of hearing were discovered by a Buddhist Priest about the year 1410 Its cures were so numerous and **many so seemingly miraculous,** that the remedy was officially proclaimed over the entire Empire. Its use became so universal that for **over 300 years no Deafness has Existed among the Chinese People.** Sent, charges prepaid, to any address at $1.00 a bottle.

Hear What the Deaf say!

It has performed a miracle in my case.
I have no unearthly noises in my head and hear much better.
I have been greatly benefited.
My deafness helped a great deal—think another bottle will cure me.

"Its virtues are UNQUESTIONABLE and its CURATIVE CHARACTER ABSOLUTE, AS THE WRITER CAN PERSONALLY TESTIFY, BOTH FROM EXPERIENCE AND OBSERVATION. Write at once to HAYLOCK & JENNEY, 7 Dey Street, New York, enclosing $1.00, and you will receive by return a remedy that will enable you to hear like anybody else, and whose curative effects will be permanent. You will never regret doing so."—*Editor of Mercantile Review.*

☞To avoid loss in the Mails, please send money by REGISTERED LETTER.

Only imported by **HAYLOCK & JENNEY,**
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SOLE AGENTS FOR AMERICA. **7 Dey St., New York.**
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Has Facilities
—FOR—
DOING as GOOD WORK
—AND AS—
PROMPTLY
As any Engraver in Canada
ESTIMATES FURNISHED.

MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface
RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.
HOYT'S CELEBRATED LEATHER BELTING.
COTTON BELTING, for Flour Mills. &c., Superior Quality.

DISSTON'S CELEBRATED MILL SAWS.
Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 11.21
ESTEY, ALLWOOD & CO., SAINT JOHN, NEW BRUNSWICK.

MACHINE OILS, ETC.

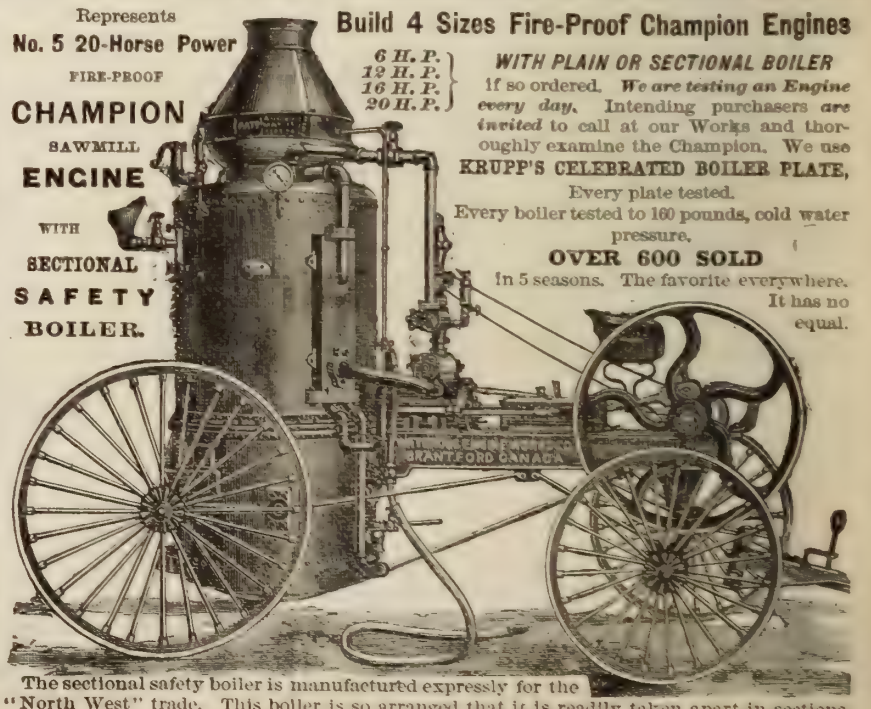
McCOLL BROS. & Co.
TORONTO,
MANUFACTURERS and WHOLESALE DEALERS IN
Machine and Illuminating Oils

Four (4) Medals and Three (3) Diplomas awarded to them in 1881, by the Leading Exhibitions of the Dominion.

SEND FOR PRICES, ETC. 5.2

Represents
No. 5 20-Horse Power
FIRE-PROOF
CHAMPION
SAWMILL
ENGINE
WITH
SECTIONAL
SAFETY
BOILER.

Build 4 Sizes Fire-Proof Champion Engines
6 H.P.
12 H.P.
16 H.P.
20 H.P.
WITH PLAIN OR SECTIONAL BOILER
If so ordered. *We are testing an Engine every day.* Intending purchasers *are invited* to call at our Works and thoroughly examine the Champion. We use
KRUPP'S CELEBRATED BOILER PLATE,
Every plate tested.
Every boiler tested to 160 pounds, cold water pressure.
OVER 600 SOLD
In 5 seasons. The favorite everywhere. It has no equal.



The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. *We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies.* Largely used by the Pacific Railway Company and all the large Colonization and Ranche Companies.
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Send for New Circular.

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Manufacturers of all Descriptions of

STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

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Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19

144 Upper Water Street, HALIFAX, N.S.

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LIGHTNING CANT-DOG

STEEL RING,

The Lightest, Cheapest and Most Durable Cant-Dog in the World.

PETER ROBERTSON,

Chaudiere - - - Ottawa.

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PAIN-KILLER
MEDICINE CHEST IN ITSELF
A PURELY VEGETABLE MEDICINE
For INTERNAL and EXTERNAL use.
THE OLDEST BEST & MOST WIDELY KNOWN FAMILY MEDICINE

Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

COBOURG, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &c., J. E. KENNEDY

Beware of Counterfeits and Imitations.

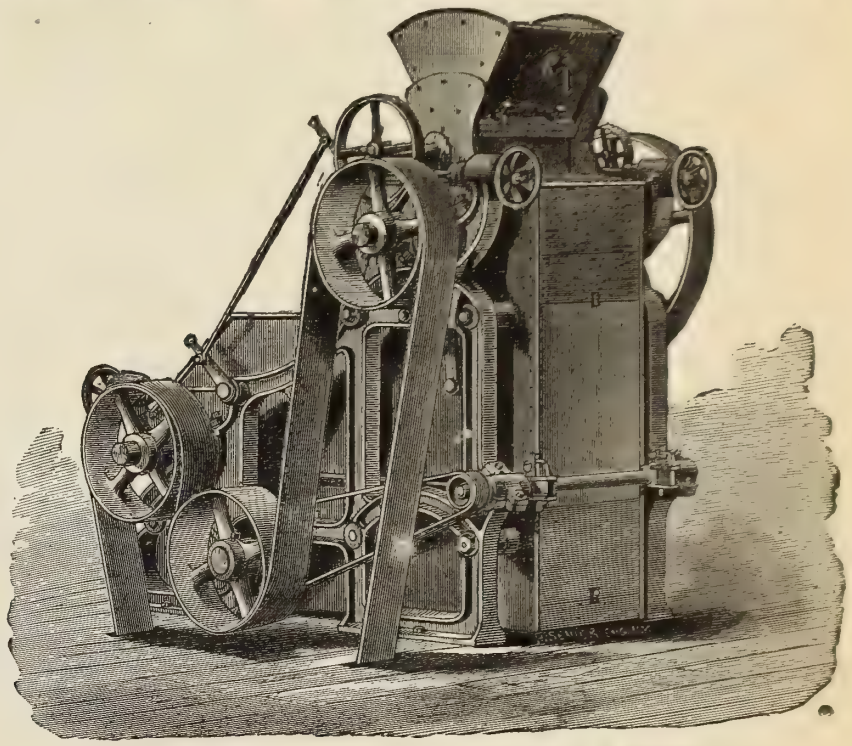
Price 20c., 25c., and 50c. per bottle.

THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

MANUFACTURED EXCLUSIVELY BY

MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

☞Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

1L19 **Mention this Paper.**

LOGGING IN THE NEVEDAS.

A correspondent of the *North-western Lumberman* says:—"A chute is laid from the river's brink up the steep mountain to the railroad, and while we are telling it, the monster logs are rushing, thundering, flying, leaping down the declivity. They come with the speed of a thunderbolt and something of its roar. A track of fire and smoke follows them—fire struck by their friction with the chute logs. They descend the 1,700 feet of the chute in 14 seconds. In doing so they drop 700 feet perpendicularly. They strike the deep water with a report that can be heard a mile distant. Logs fired from a cannon could scarcely have greater velocity than they have at the foot of the chute. The average velocity is overt 100 feet in a second throughout the entire distance, and at the instant they leap from the mouth their speed must be fully 200 feet per second. A sugar-pine log sometimes weighs 10 tons. What a missile! How the water is dashed into the air! Like a grand plume of diamonds and rainbows the feathery spray is hurled to the height of a hundred feet. It forms the grandest fountain ever beheld. How the waters foam and seethe and lash against the shore! One log, having spent its force by its mad plunge into the deep waters, has floated so as to be at right angles with the path of the descending monsters. The mouth of the chute is perhaps fifteen feet above the surface of the water. A huge log, hurled from the chute, cleaves the air and alights on a floating log. You know how a bullet glances, but can you imagine how a saw-log glances? The end strikes with a heavy shock, but glides quickly past for a short instant; then a crash like the reverberation of artillery, the falling log springs vertically into the air, and with a curve like a rocket falls into the water, a long distance from the log it struck."

A KEEL piece 156 feet in length, and 30 inches in diameter at the top end was recently got out at Seattle, W. T. Eighteen oxen hauled it on a skidded road.

TREE PLANTATIONS.

Mr. F. P. Beck, Bethany, N. Y., afforded an example of what can be done in forest culture. He began a plantation of trees on rather poor soil, which consists of a clay loam resting on shelf-rock near the surface. He grew European larches and Scotch pines. At two years from the seed, these young larch and pine trees were transplanted to places where they are to remain four feet apart each way, an acre thus containing 2,640. Those that have been set six years are now ten or twelve feet high, vigorous in growth and branching so extensively as to make it difficult for one to pass through the woods. These are from two to three inches in diameter at the ground. Those set eight years ago are from eighteen to twenty-four feet high and from four to six inches through. The pines are planted out sixteen feet each way. In a year or two Mr. Peck will begin to thin out the larches, using them for poles and small fence posts. The land is thought to pay as well in these trees as if planted to ordinary farm crops, while the advantages they afford in protection to other crops and to the farm buildings is inestimable. Mr. Peck believes if 20 per cent. of our older and rough cleared land was planted to forest trees, it would render the remaining 80 per cent. more productive and valuable than the whole now is.

A FIVE-FOOT saw, running 700 revolutions a minute, burst in Salling, Hanson & Co's. mill at Grayling, recently, with terrific force. One piece went directly upward through the roof, cutting a rafter completely off, and another went through the end of the mill about 40 feet distant.

THE Evart *Review* says:—Mr. Snyder tells us that a company of men in Greenville have organized to build a narrow guage railroad from Muskegon river, between Crapo and Paris, to the pineries in Mecosta, Church, Moon, Crosby, Nichols and Palmer are in the scheme, and 70,000,000 feet of pine to cut, besides large quantities of hemlock, etc.

PARKER & EVANS

SOLE PROPRIETORS OF THE

FAMOUS INTERNATIONAL

BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

In ordering, mention the CANADA LUMBERMAN. 1L19

504 St. Paul Street, MONTREAL.

AMERICAN HEAVY

Oak Tanned Leather Belting

Rubber Belting, | Rubber Packing,
Rubber Hose, | Linen Hose,
And Cotton Hose.

A Full and Complete Stock always on hand.
Write for Prices and Discounts.

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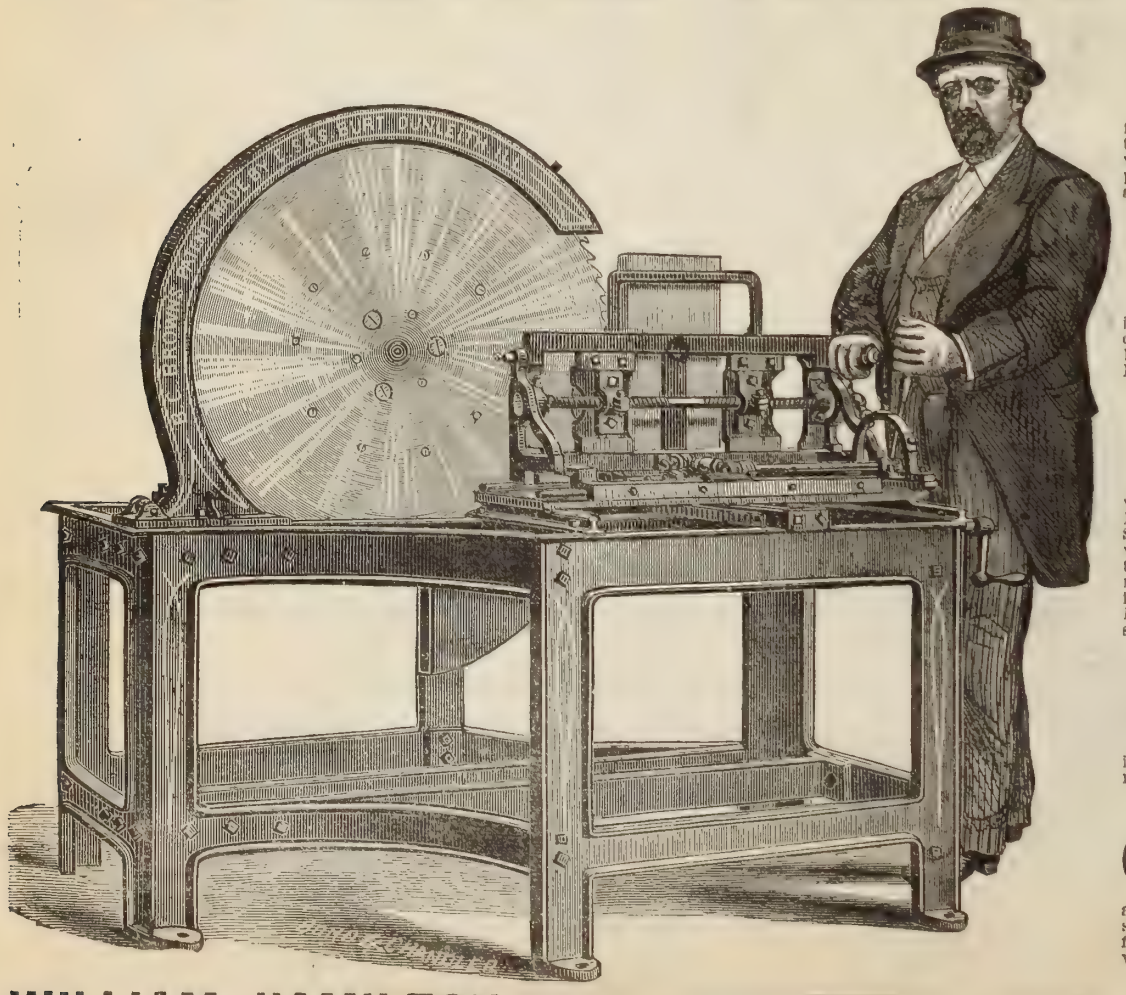

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Brown's Patent Shaft and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c., from spalts, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion; have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out; sixteen 16 ft. boards, or eighteen 13 ft. boards, have been cu. by it in one minute. It is the established feed for steam mills; I make a specialty of its manufacture; will guarantee satisfaction.

Our Patent Twin or Span Circular,

with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab logs 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Trenton, and Georgian Bay Lumber Co's Mill, Waubaushene and Port Severn. ☞I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise; I keep it constantly on hand, ready for immediate shipment.

Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.

WILLIAM HAMILTON, Peterborough Foundry and Machine Works, PETERBOROUGH, Ont.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President. JAMES T. BARNARD, Hamilton, Secretary-Treasurer. SAMUEL BRIGGS, Hamilton. Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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EMERY WHEELS FOR SAW GUMMING!

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ¾ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ¾ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } ¾, ⅞ and 1 inch. Holes,

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1yL13

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PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

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THE BLACK WALNUT.

Black walnuts are best grown from the seed, planted at once in the station to be occupied by the trees. The Hon. H. G. Joly, an enthusiastic tree-planter of Montreal, is quite sanguine of success there, and may be able to give his experience in that northern latitude. I should hesitate recommending the tree for the Dominion. The walnut prefers a very rich, deep soil, and its natural habitat is chiefly south of the Great Lakes, but it is hardy enough ; in thrives in Bohemia.

The seeds may be gathered in the autumn, when they fall, and can be planted at once with their hulls on, or they may be spread out thinly on the ground not more than two or three layers deep, and left exposed until the spring. The hulled or cleaned seed may be purchased in any of our towns for a price ranging from 25 cents upward to $1 per bushel, varying with the demand and crop of nuts.

In planting, the ground should be prepared as for Indian corn, and one or two nuts dropped at the intersection of the marker used for that cereal, or they may be dropped in a furrow and covered with the plow. They can stand 4 feet apart, or if in wider rows, still closer. A row of corn or potatoes can be planted between these drills, if 5 to 7 feet wide. Spring planting may be done in the same hills with the corn, as is done with locust seed and some other hardy species that will make a good growth the first year, such as the white maple, or the ash. This plan saves the labor and risk of transplanting from the nursery row.

The land needs to be well cultivated and kept clear of weeds for two or three years. The walnuts may be planted in blocks alone or in alternate rows with other trees that are to be removed in a few years, as the walnuts need room, but close planting forces them up.

J. A. WARDER,
Vice-Pres. A. F. A.

PENNSYLVANIA FORESTS.

The state board of agriculture, which recently met at Harrisburg, took steps to ascertain what proportion the timber land of the state bears to the entire acreage. Since then statistics which have been obtained indicate that about one-fourth of the acreage is woodland, and that its tendency is toward a marked decrease in quantity. The chairman of the committee on forests and forestry, Wm. S. Roland, of York, forsees impaired health and discomfort of the people, and deleterious effects upon the business relations of the state, if the destruction of Pennsylvania forests is allowed to go on without something being done in the way of repair. "Trees are the dominating members of the vegetable kingdom. They are the necessary factors in the sum total of those influences which constitute the environment of animal life. Trees, by absorbing carbonic gas and emitting oxygen, act as agents in rendering the atmosphere life-sustaining. By interposing their foliage between the sun and the earth, they serve a useful purpose in sheltering the soil from the heat, and, as conductors of heat, in equalizing the temperature of the earth and air. The forest, too, guards the soil against abrasion and the displacement from torrents and overflows, and thus again exerts its conservative influence for man's good. We need trees for the delight they afford, as at once the most majestic, imposing and beautiful of nature's vegetable forms. The state cannot afford and should not much longer withhold, or refuse to give the subject of our ferests its most serious attention." Mr. Roland notes the encouragement which tree planting is receiving in other states, and thinks these examples should be imitated in Pennsylvania. He suggests intelligent legislation, the organization of local agricultural societies, and the support of the state board of agriculture. In this way mach good could be accomplished, in his judgment, toward creating public sentiment with regard to the question, and starting a general movement for the repair of the wastes which have been made in the forests of Pennsylvania.—*Williamsport Gazette.*

THE OUTLOOK FOR TRADE.

The *Northwestern Lumberman* says :—The amount of new projects in the way of building operations, which is now developing not only in Chicago but throughout the entire west, has never been excelled at any period in the history of the country. Newspaper exchanges from every quarter contain notices of improvements contemplated, and contracts entered into for business houses and residences, to an extent which bids fair to give employment to all the skilled artisans in the land. From New York and Boston, as well as other cities of the East, to the Rocky Mountains, every town and hamlet gives word of a demand for an unprecedented quantity of building material of all classes and descriptions.

During the past two weeks buyers from the country have made their appearance in the Chicago market in numbers and with demands for lumber which presage a lively fall trade. It is no doubt true that the yards of the dealers in almost every section of the West have been kept on short stock, dealers preferring, from the unsettled condition of the wholesale markets, to order from hand to mouth until such times as prices should have, beyond cavil, reached their lowest level. This is thought by many buyers not yet to have been realized, and while many declare that they are not yet prepared to lay in full assortments, the boom in building in many localities has forced the dealers to an increased activity in obtaining supplies.

Every indication at present points to a condition of prosperity among the farming communities of the West which presages a contentment of mind and satisfaction of feeling highly conducive, on their part, to make all needful or hitherto contemplated improvements. That this is the view taken by the merchants and dealers in all kinds of commodities, lumber included, is fully evidenced by the increased activity daily becoming more and more manifest by the influx of buyers, as well as by the increase of orders, at all wholesale points, seeking the goods which a prosperous people are already showing an increased willingness to purchase, as well as by the building projects which are necessitated by the increased wealth of a people who feel assured of their ability to purchase and pay for the comforts and luxuries in which prosperity enables them to indulge. The present outlook gives indications of a business boom exceeding anything which the past two years of prosperous activity has witnessed.

NEW FORESTS IN THE WEST.

The Bay City *Lumberman's Gazette* says :—Many thousands of acres in the treeless regions of the far west are annually planted with shoots and saplings under the provisions of the law, passed by Congress a few years ago, to encourage the growth of timber. The wisdom of these laws, says the Boston *Advertiser*, becomes more and more apparent as time goes on. They promise to counterbalance the wholesale destruction of forests in the older sections of the country by creating new tracts of woodland upon the vast bare plains of the trans-Mississippi region. They appeal directly to the individual self-interest of settlers and to the desire for land-ownership which appears to be a stronger passion in new communities, where the soil is almost the only visible property, than in places where an old society has created many other forms of wealth. The western farmer who has homesteaded a quarter section of 160 acres can secure an additional quarter section by planting and caring for the growth of ten acres of trees. If he selects his homestead tract upon an unoccupied section he can get 320 acres in a body, and if this is not feasible he can usually find a chance for a "timber entry" within a short distance of his home and thus obtain a second farm to give to his sons or sell when the denser settlement of the region has made it worth a good price. Nor are the benefits of the tree-culture laws limited to actual settlers. Many claims are taken up purely for speculative purposes by non-residents. Considerable areas of land are thus kept out of the hands of men who would homestead and cultivate them, but the object of securing the rearing of numerous patches of forests in regions naturally bare of trees is greatly advanced.

It is still too soon to tell whether or not any noticeable climatic changes will result from the creation of timber tracts now going on in southwestern Minnesota, Dakota, Nebraska and Kansas, but it is not probable that great benefits may accrue to those regions. When the trees attain a fair size the new forests may prevent excessive droughts and destructive freshets, and break the force of high winds and tornadoes, as well as promote a supply of fuel and lumber for future generations. The timber-culture laws afford a striking example of how much can be done to improve natural conditions by wise legislation, and are a lesson to the advocates of the let-alone theory of government. Their successful working suggests the inquiry,—If the United States can, by two simple statutes, cause forests to spring up on hundreds of thousands of bare acres in the new west, cannot the states do something by legislation to regulate and limit the destruction of timber in the older sections of the country?

OLD WOODEN BOLTS IN HOUSEBUILDING

Why do you make so lavish a use of nails in the carpenter work of our houses, to the exclusion of the honest old oaken pin? Pull down any building, if it be merely a barn, of more than 200 years old, and you will not find a single nail in the original work ; rafters and joists were all bolted together so stoutly as almost to defy the tools of the destroyer. Many an old manor barn, when pulled down of late years—as unfortunately only too many of them have been—has shown itself to have been better built than most palaces are now. There are arguments in the way of economy of time and so on infavour of the use of nails in housebuilding, but these are as nothing compared with the solid advantages of using wooden bolts. The iron nails in time canker and rot rafters and floors, but bolts hold them together "like grim death, and render a house practically indestructible.—*Exeter Flying Post.*

THE *Timber Trades Journal* of July 15th says of the 44 vessels to London recorded in this number no less than 32 are steamers, 3 of them forming part of the Quebec fleet. The spring arrivals from the St. Lawrence to the present time consist of the *Ocean King*, *Hovding*, *Erl King*, *Viking*, *Nightingale*, *Thames*, *Orcn*, and *Red Jacket*, the last mentioned famous clipper once again bringing to our port a full cargo pine deals, &c., from Quebec.

A DETROIT despatch says :—The American Lumber Company has purchased from the Detroit & Marquette Railway Company the standing pine on its entire land grant, except Mackinaw county and the east part of Chippewa county—in all 500,000 acres ; they have also purchased 225,000,000 feet of timber in the northern peninsula, giving it control of the largest body of pine in Michigan. It intends to cut 14,000,000 feet next winter. The head offices are in Toronto, Canada.

THE UNITED STATES TARIFF.

The recently authorized and officially appointed commission for the purpose of investigating the tariff policy of the United States, and making such recommendations to congress as a conference with the representatives of the various industries of the country may impress the committee with the necessity of, possesses an interest to the lumberman as much as to any other class of our citizens. Already steps have been taken in the Saginaw Valley to bring the subject of a tariff on products of the forest to the attention of the commission. Such representatives as may appear before the committee, from the manufacturing localities of the country, can reasonably be expected to present only the views of the pine land owners of the United States, and it is an indisputable fact that a large majority of these are advocates of a full protective tariff, as opposed to the admission free of duty of products from other countries which may be expected to enter into competition with the timber and lumber produced in this country.

It is a favorite argument with this class of people that the admission of Canadian lumber would reduce the selling value of the lumber produced in the United States, and consequently diminish the profits of a large and influential class which, having large investments in the manufacturing of lumber, gives employment to vast armies of men in the woods, on the rivers, in the saw mills, in the maritime interest, and in the various manipulations of manufacture, transportation and final distribution, down to the final consumption on the farm, or in the dwelling, or warehouse.

There is much force in the arguments of the advocates of a policy which shall exclude from the markets of the United States the timber products of the neighbouring Dominion, and this side of the case will without any question be forcibly and ably presented to the attention of the commission. But there is also a large, well-informed and influential body of citizens equally interested in the general prosperity of the nation, and of the lumbermen particularly, who believe that lumber and other forest products should be admitted to this country free of duty. These, too, have strong arguments to present in favor of their view of the case. They acknowledge all that is claimed by the advocates of protection, as regards the extent of the business, and the vastness of the army of men who find employ in its production, transportation and sale. But they argue beyond those who favor the protective policy in the interest of the holders of timber land, and say that the greatest good to the greatest number, the protection of the interests of the great mass of the people in a rapidly growing country demands that no restrictions shall be placed upon the importation of a commodity necessary to the growth of the country, and the development of its industries, especially in view of the fact that the article in question is rapidly becoming extinct as a home product, and that even with the addition, without let, hindrance or import duty, of that which a neighbouring province can supply, the period is all too near at which the exhaustion of the home supply will be most severely felt.

Those who take this side of the question urge that the interests of the many millions who consume the lumber are of paramount importance to that of the few thousands of timber owners, in whose interest protection is demanded. They go yet further and assert that the interests of the timber owners of the United States would not be in the least jeopardized by the admission free of duty of the entire timber resources, or surplus, of our Canadian neighbours, for the reason that the Canadian supply is too small in the aggregate materially to affect the markets of the United States. They assert that the yearly production of lumber in Canada does not exceed, upon a liberal estimate, one quarter the amount yearly taken from the forests of Michigan and Wisconsin, and that at this rate of production many of the Canadian lumbermen assert the present existence in the provinces not to exceed a five years' supply. Even if it be sufficient to maintain a present ratio of production for twenty-five years, the prospects of denuding the American forests in less than ten years is ample justification for inviting the Canadians to assist us in building up and peopling our vast country, by lengthening out the period in which our own pine lands will be exhausted.

The advocates of free trade point to the estimates of the present resources of the northwest, as presented by the census commission in 1880, and confidently assert that if, at that time, there were resources of but 81,000,000,000 feet of timber in the white pine regions of the only portion of the United States in which that article is produced, while the yearly cut of the same region is from 8,000,000,000 to 10,000,000,000 feet, it has become a matter of not exceeding one decade when the point of exhaustion shall have been reached, and that with an increasing demand of from 1,000,000,000 to 2,000,000,000 feet yearly, consequent upon the natural growth of population, the addition of the increased demand through importation from the Dominion of Canada will work no harm to the present owners of timber in the northwestern states, while lengthening the period of their labours and consequent profits. That the supply of the United States is growing perceptibly less is, they claim, proven by the rapidly advancing values of standing timber.

The advocates of the free trade policy assert that the general good being paramount to that of the individual, cheaper lumber to the masses is of greater importance than of increased profits to the few, and that if by the introduction of Canadian lumber free of duty the price was reduced, such a result would be for the benefit of the people of the country as a whole.

This latter argument is probably the weakest which has been suggested, inasmuch as the abrogation of all import duties on lumber and timber would but have the effect of leading American capitalists to possess themselves at once of all the Canadian timber, which is not already owned by them, and a realization of its true value, in view of the not far distant period of the extinction of the *pinus strobus* in the northwest, would forbid their placing it on the market at unremunerative prices. Free trade or protection will have but little influence over the prices which the people as a mass will be called upon to pay for their lumber in the future, and the all important consideration is in the question of lengthening out the supply.—*Northwestern Lumberman.*

THE FOREST BABY.

There are "babes in the woods" which are both beautiful and of value to those who are seeking the best investment of time and money in transplanting trees.

Autumn is better than spring time for the usual methods of transplanting, but we have found a more excellent way than either of these times affords. All through the woods, and under the trees on the edge of the forests and along the road-sides, little forest babies, or seedlings, are springing up. They are cozied away under parent elms and maples, linden and ash trees. Any rainy day from the first of June till on in September is a good time to select these sylvan seedlings, and set them where you wish them permanently to stand. Take an ash-pan and a transplanting trowel, with an old newspaper or two in your pocket, out under some hard maple of exceptionally fine form and size; one it may be which has been admired for its beauty. You pick out as many as you want of that kind. Take up plenty of earth with each, and wrap enough paper around the earth to keep it in place. The heads of the maple forest babies are from two to four inches high, and peep cunningly out from their nest in the ash-pan. They are snugly in among their cousins of other desired varieties, and in an hour or less you return with a score or more precious prizes. It may be well to set each one in the ground, with the paper still around the roots and earth. The paper—unless there is more of it than is necessary—will do no harm if left on, and taking it off might displace the soil around the tiny rootlets. We want of course to remove the forest baby from its old home to its new one without its knowing it has been moved. Thus with the expenditure of less time and money than is needed to transplant a tree, ten feet high, twenty or more are set. In ten years, the two-inch forest baby will be larger than its neighbor which was ten or twelve feet tall, and set, it may be, some weeks or months earlier. The baby during the life of both, will outgrow the other. It will also continue to grow long after the other has reached maturity; as it never had one-hundredth part the root disturbance which has been suffered by the other.—*G. M. Powell.*

WOOD-CARVING.

It is remarked that the growing admiration for antique patterns in dress, furniture and house decorations has brought about the revival of a form of art that almost starved to death during the recent period of utilitarianism. Wood-carving is perhaps not a very exalted manifestation of the sculptor's art, but experts in it fifty years ago ranked among the foremost of artisans if, indeed, they fell short of consideration as artists. In older countries, where vested wealth, continuing for generations in families, made patronage of the arts one of the chief amusements of the possessors, stately mansions are filled with rare examples of the wood-carver's cunning, and in the older portions of this country similar objects are not wholly wanting, if not plentiful. Gentlemen of estates in revolutionary times thought their mansions unfinished unless the showy rooms were plentifully adorned with fanciful mouldings, panels and wainscoting done in hardwoods. Such fine workmanship was generally imported from the mother country, and little encouragement was given to aspiring youth of home growth to try their prentice hand in that field of endeavor. Some few found foothold in the eastern states, but their craft lost vogue, and about the only field for its exercise came to be the fanciful wooden figures indicating emporiums for the sale of tobacco, or adorning the prows of ships, and regarded as a sort of fetish by superstitious tars. There is said to be only three master wood-carvers in New York, and one of the prominent practical exponents of this art has directed his operations to the West, having some time ago dropped down in Chicago. He is 52 years old, grizzled, and so deaf that a slate is the medium of questioning him. His shop contains many specimens of the carver's art, in various stages of progress, from the rough-hewed pine log to the finished and painted aboriginee, whose tempting tender of a wooden something, supposed to resemble the Indian weed, is valued as the tobacconist's trade mark. He has been all through the mill from the age of 19, serving his apprenticeship when the ambitious beginner had to pay $100 to $200 the first year for his preliminary knowledge. There was a time when ship figure-heads were in demand, and were carved to order at such prices as $12,000 to $15,000. A large business grew up in the manufacture of wooden figures of Indian men and maidens, and this is now an important industry. In the early stages of the hue and cry of circus humbuggery, when sensational display was more of a big thing than now—it having become an old story—the menagerie nabobs vied with each other in the securing of extravagant and fiery chariot and caravan carvings. Barnum would sell his fancy elements of pageantry when they had been used a year, and order new ones. A band wagon built for Forepaugh, with a wealth of carving, cost $2,225, and though made in this country, he advertised it as imported at a cost of $90,000. The carving of effigies is a novel branch of the art. Some time ago Allan Pinkerton, the noted detective, had made the image of an old negro for whom he had a regard which prompted the desire to preserve his memory in that form, and the carving was executed from an old photograph.—*Northwestern Lumberman.*

NEW ZEALAND TIMBER.

Even in far off Australasia the people are waking up to the serious effects produced by cutting the forests from the hillsides. It is not a country of forests, it would seem, and the Otaga *Witness* editorially says: "We who live in Dunedin, and who can recollect how much drier our climate has become of late years, owing, no doubt, to the hills surrounding us having become in great part denuded of the forest growth which for so long covered them, will not need to call in the aid of science to convince us. Our experience will be sufficient for that."

It appears that one county (Lake) has officially made a move towards replenishing the forests, and the legislature of that country has had the matter under advisement for some years. One of the enactments provides that any person planting one acre (presumably of his own land) with forest trees shall be entitled to receive a free grant of two acres of any land open for sale in the province. But it was first to be shown that the land had been devoted to the purpose of tree planting only for at least two years; that the trees were in a vigorous and healthy state; and that they had been enclosed by a fence which was sheep and cattle-proof. An amendment provides that certain crops may be raised among the trees, and that not less than 20 nor more than 250 acres could be taken under the grant.

This is in a similar direction to the United States law in relation to timber culture.

The move there is undoubtedly in the right direction, and will bring good results. The work in tree planting, and the nursing of wild timber in the west, is making itself felt perceptibly already, in various modifications in the climate. It will be more and more surely felt as the years go on. In some of our once treeless regions it is also found that tree planting pays in the value of the timber grown. In five years poles may be taken out of the young growth, and soon thereafter posts and large timber, and at the same time space is furnished to the timber left. The shade also becomes valuable, and the growing timber holds moisture in the soil to be gradually given out. Its benefit is also decided, not in increasing the annual rainfall but in a more equable and timely distribution of the same. There certainly is profit in the planting of timber in treeless regions.—*Lumberman's Gazette.*

Southern Pine in Northern Markets.

A perceptible increase is noticeable in the northern consumption of southern pine. In this city, where the more readily accessible and cheaper white pine has hitherto monopolized the demand, to the almost utter exclusion of the southern product, the increased use of the latter in the laying of floors in all kinds of buildings, and to other uses in which it is well suited, is strong evidence that the day is not far distant, when the use of the long-leaf pine of the south will rank favorably in the extent of its consumption with its northern rival.—*Northwestern Lumberman.*

So much complaint has been made by lumbermen about the Chippewa Valley & Superior railroad bridge, over the mouth of the Red Cedar river, Wis., that the company has decided to make a change in it so as to remove all possibility of delay or damage to rafts.

The *Northwestern Lumberman* says:—A. M. Elliott, from Canada, is considering the project of starting a tannery at Cheboygan, Mich. This may be the initial leather manufactory of a large number that are bound to go into operation in northern Michigan, whereby the vast quantity of hemlock bark in that region is to be utilized.

Mr. H. de L. Allen, of Duluth, is making preparations for starting an extensive lumber mill in the immediate vicinity of Prince Arthur's Landing. He has very large timber limits in the neighbourhood of Pigeon River, and he proposes to tow the logs from that point for the purpose of manufacturing his lumber at the Landing.

The exportation of fine household furniture from the United States is assuming large proportions. Last year the value of such exports reached $5,000,000, an amount largely in excess of the exportations of the preceeding year, thus showing that the business is increasing. On the other hand the importation of this class of goods is diminishing rapidly.

The Emerson *International*, of August 1st, says:—The river is again filled with floating logs. The drives belong to the Winnipeg Lumber Company. The logs come all the way from Clear Water on the Red Lake River. The quantity is about 10,000,000 feet. The logs are pine, and are as fine a lot as ever went down the Red River or any other stream.

F. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

LEATHER BELTING

First Prize, Provincial Exhibition.....Ottawa, 1875
First Prize, Provincial Exhibition..... Hamilton, 1876
First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition.....Toronto, 1879
First Prize, Industrial Exhibition.....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

L21

81 Colborne Street, Toronto

Wooden Water Pipe.

There is an important industry at Tumwater, W. T., in the shape of a wooden water pipe manufactory. The pipe is constructed of Puget Sound fir, the large logs being used, in order to get the most solid timber and render the pipe strong and durable. The wood cylinders when turned out are shipped to Ogden, where they are bound with heavy strap iron, well coated with tar, and wound spirally on the pipe which is about an inch thick. The pipe is easily put down; and it is claimed that wood pipe when kept well saturated with water will last as long as iron under the same conditions, if not longer, and the outside coating amounts almost to an iron piping in addition, while the cost is about half that of iron piping. At Ogden this pipe has been adopted, and some nine miles of service established, a portion of which has a pressure of 10 pounds per square inch, or over 200 feet perpendicular head.

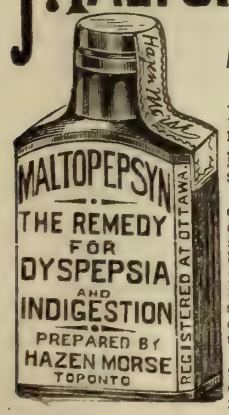
Black Birch.

At the outlet of Chazy Lake, Clinton county, N. Y., there is a large saw and planing-mill, recently erected by an iron company that has large works there. The mill building is 40x100 feet on the ground, and two stories high, the roof being covered with slate. On the second floor is a circular mill capable of sawing timber 55 feet long, with a capacity of 30,000 feet a day. The mill is supplied with edger, clipper, planer, clapboard, shingle and lath machinery. It is hoped to utilize the mill in sawing black birch for the market. Large quantities of this timber grow in the vicinity, and it is considered in that section as very fine for house or car finishing. Hitherto it has been consumed in making charcoal, but it is now proposed by the mill owners to put it to a more noble and valuable use.

MALTOPEPSYN

AN

Artificial Gastric Juice.



A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the rules of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

A. L. UNDERWOOD

WHOLESALE DEALER IN

White Pine, Basswood & Hardwood,

82 King Street East,

TORONTO, ONT.

1Ltf

S. S. MUTTON & Co.,

Wholesale Lumber Dealers

TORONTO.

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.

☞P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 1Ltf

LUMBER

Shingles, Doors, Sash, Flooring, &c.,

WANTED,

STATE QUANTITIES AND PRICE TO

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Head Office, 514 Maine Street, **Winnipeg, Man.**

L11

CENTRAL IRON WORKS.

Law, McLean & Brayshaw

Simcoe Street,

PETERBOROUGH.

CASTINGS of every description in Brass and Iron.

All sorts of MACHINERY for Saw and Grist Mills.

STEAM FEED for Circular Saws.

Also Saw Gummers, Cutters, Double Upset Swages, and all Saw Tools.

Send for Price List. L4

IRWIN & PHILP

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Lumber Dealers,

FORWARDERS,

Shipping & General Agents

PORT HOPE.

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THE MONTREAL SAW WORKS

MONTREAL,

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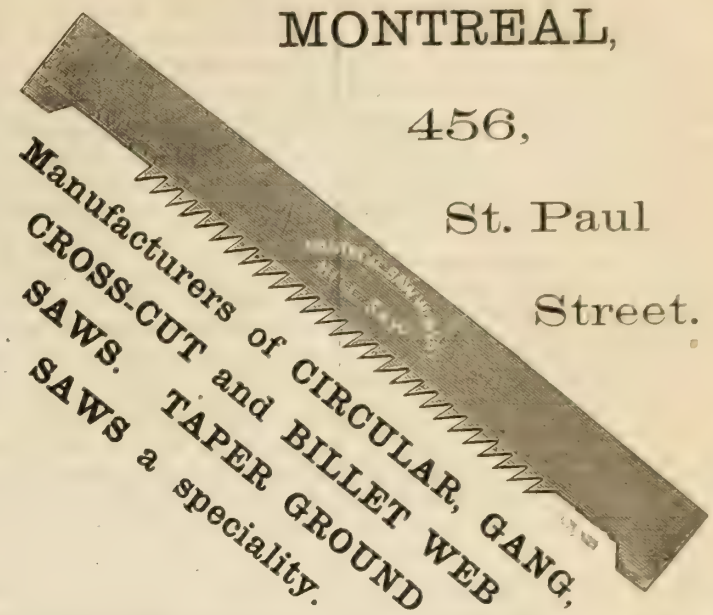
Street.



General Mill Supplies always on hand.

General Mill Supplies always on hand.

Address all correspondence to Chas. M. WHITLAW,

1L20 MANAGER.

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Alexandria Saw Works

SAINT JOHN, N.B.

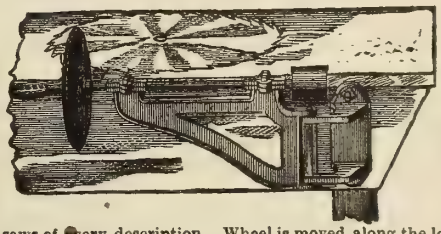
Saws of all kinds manufactured from the BEST CAST STEEL that can be procured in any Market.

EVERY SAW WARRANTED.

SAWS REPAIRED in the best manner and on Short Notice.

Send Address for Price List, Terms, &c.

1L17 J. F. LAWTON.



To MILLMEN!

HODGSON'S

Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

IL24 **T. HODGSON, AMHERST, NOVA SCOTIA.**

ESTABLISHED 1820.

EAGLE FOUNDRY!

GEORGE BRUSH

14 to 34 King and Queen Streets, MONTREAL,

MAKER OF

Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

AND AGENT FOR 1L20

"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

THE FORTHCOMING SUPPLIES.

The *Timber Trades Journal* says:—The great question of the hour, so far as the timber trade is concerned, just now is, what proportions are the autumn supplies likely to assume? To the provinces this is even more important than to the large towns; the ability of the latter to relieve their markets when unduly oppressed by public sales, at which a numerous attendance can mostly be relied on, makes prices less affected by the state of the supplies than at smaller places where the bounds of consumption are not capable of the same expansion, and there are some ports where a dozen shiploads on the market would be almost calamitous.

The general opinion is that the stocks will be considerable for fall shipment, both as respects flooring and deals, from the north of Europe. The first impression was that, through want of snow to fill the rivers, the floatage of logs from the interior of Sweden, &c., would have been difficult, and the stuff available for conversion consequently been extremely limited. This has not been borne out in the result, as logs are plentiful at the mills, while all are said to be in full work manufacturing for export to the various markets, both continental and colonial, but two-thirds at least of which will most likely find its way to the United Kingdom.

The German market is almost entirely closed to the Swedes, owing to the prohibitive duties on sawn and planed wood which the governing powers of the former have thought proper to institute, with the view of stimulating their own manufacture. It is not improbable that hereafter, when the Germans have established planing mills, and produced more than is needed for their own wants, we shall find them looking abroad for a market, and entering into competition with the Swedes and Norwegians. At present, however, in respect of sawn wood, deals, and battens, to which their manufacture is just now confined, we shall not receive from Prussia any heavy supply this autumn. Neither to the east country ports generally need we look for heavy fall shipments, though in whitewood from Riga and Petersburg an average supply may be counted upon. The redwood logs at hand at the east Baltic ports fit for conversion are stated to be very limited, and shippers, though more anxious now than they were earlier in the year to make sales, are not inclined to make reductions in the f.o.b. quotations to any serious extent, notwithstanding the admitted dulness of the present state of trade on this side, which is generally acknowledged to be telling very seriously on the cargo values of nearly all descriptions.

We however, are not so immediately concerned now with the tendency of prices as with the subject of the coming supplies; and, as will be gathered from our remarks, the views generally expressed imply that they are likely to be somewhat heavy from both Norway and Sweden. With deals, &c., from the Gulf of Bothnia, we are not overburdened as yet. The stocks of the latter country, however, run more in battens and flooring. Already battens are plentiful at the various markets here, and where flooring is imported in large quantities, viz., the south and west coast ports, the stocks are full ones for the time of year.

Across the Atlantic it is early yet, with the spring fleet from Quebec only just coming forward, to attempt to discount the fall supply; but, while we are on the subject, it might be as well to bear in mind that the manufacture up to the present time has been short of that of last year on both pine and spruce—in fact, from the lower ports to the United Kingdom the spruce shipments have shown a marked decrease as compared with last summer. The talked-of supply as forthcoming from New York, of this last-mentioned description (8,000 standards), alluded to some time since, we have heard nothing further about; and whether the quantity has been shipped, or only a portion, we are not able to say. There can be no doubt that with the facilities offering in the way of cheap freights from the "Empire City," it became possible to send goods through in that way, and very likely, while we are writing, deals from New York may be now discharging in some European port. If it would pay to send spruce through to New York, why not pine? The United States demand for the latter, however, is too active to admit of shipping the stuff to a less favorable market, and the question of low freight would, in respect to yellow pine, probably not influence a single cargo in the direction of New York for transhipment.

On the question of prices, the present tendency of values of nearly every description is downward; most of the importers have their hands already full, and till trade recovers from its present apathy, they are unlikely to pledge themselves now to later engagements, but will probably wait the tide of events—in fact, the waiting policy at this juncture would be the wisest for many and various considerations, the probabilities of a rise in values being too remote to lead speculators to invest in large stocks, though, if values reach a lower point, it is more than likely, at the present cheap price of money and the quantity available, that large purchases of timber will be made on the chance of improvement. It would at this juncture have been highly interesting to have had the opinions of the Society of Swedish Saw Mill Owners, but that body probably do not think it judicious at this critical and somewhat uncertain moment to make any public expression of the state of the stocks at the various mills.

With reference to London there seems to be no indication as yet that the forthcoming supply will be heavier than last year; in fact, up to very recently the advices received were just the other way, and the Dock Company last week had on their list to arrive only 74 vessels, as against 94 last July, but with the great shipping facilities afforded by steamers the market may be overburdened on a very short notice as long as the stuff at the mills is plentiful and shippers choose to send it here.

CHIPPEWA CHIEFS.

The *Northwestern Lumberman*, of July 29th, says:—Last Wednesday a delegation of Chippewa chiefs and their attendants arrived in the city, on their way to Washington to complete negotiations which are now pending for the disposal of their lands, in whole or part, to the government. The Red Lake, Minn., reservation and their outside territory includes 3,200,000 acres of pine land, the timber on which is admitted to be of excellent quality and stands thickly in most places. It is pretty well understood that the untutored redskin is a poor lumberman, and more interested in the hunt than in logging. While he is proverbially noted for a distaste for manual effort, he is generally found without facilities for performing practical labor, and without the sagacity and skill in a mechanical way, which he would display on the trail or in the chase. True, the Red Lake Indian is supposed to be nothing more than a semi-savage, without grit enough to get up a raid, or sufficient gumption to dig in and plow a 10-acre field, but he has the inherent qualities of the American aboriginee, and hard work is not on his bill of fare, though he will stand more grief than anybody for the sake of avoiding that worthy essential to decent existence. As a result the pine on the lands of the Chippewas is very little cut by its owners, while a large amount of it is surreptitiously snaked off and utilized by invaders. So the pine lands have become very much of an elephant on the hands of the Chippewas—they can't hunt anything of consequence in the forests but muskrats, they won't lumber to any extent, and the lands are worth most to their friends who call and go away again with a few million feet of pine in their pockets, as a souvenir. Ready cash is the only thing the Indian can handle to advantage, and hence the Chippewa nation has been looking around for some time for a purchaser, and they are beginning to get anxious about the matter for fear they will not fix things before somebody has stolen all the timber. St. Paul, Minneapolis and Duluth parties have talked about buying some of the land, but nothing but talk has been evolved, hence the present treaty between the Indians and the government.

The delegation mentioned has been working its way from the reservation up north toward Washington, picking up stray nickels on the route by giving exhibitions in native costume, doing war dances, singing chants, and giving other characteristic performances. Reaching this city they associated themselves with Mr. Englehardt, who has an exhibition of natural wonders in the armoury of Battery D, on the lake front. There are nine in the party, four of whom are chiefs. Their names are as follows, the chiefs coming first: Show-an-ok-om-ick-kish-hong, or The Man Who Walks Where the Land meets; As-ine-wap, or Little Rock; An-mik-ence, or Little Thunder; Nite-weg-obow, or the Man That Stands Where the Land Meets; Ash-awe-kin-ewe, or Crossing Eagle; Nakon-way-witong, or Leading Thunder; Pas-in-ase, or Wind-driven Cloud; Neak-ono-kot, or Leading Cloud; Tape-pas-ikon, or Low Feather; Mish-akee-keshek, or Low Cloud; Lady Betsey Delorme and Frank Russel, interpreter.

A representative of the *Lumberman* interviewed the delegation, and found that the whole tribe was pretty much disgusted with the way their pine had been purloined, and bent on adjusting their affairs of real estate so as to get legal tender for it or secure immunity from wholesale thievery. Skirmishers from the British Dominion, Canada Chippewas, Scandinavians, etc., are not the only operatives who plunder the lands, for there are those on the American Shore who have respectable connections who instigate or execute such timber thefts, and who ought to know better. If we should make any personal allusions it would result in stirring up the journalistic animals over at Minneapolis, and an imaginary lumber paper would do an immense amount of indignant and energetic kicking. But the Redskins know who are doing the looting over there, and are not afraid to say so. The delegation will fill an engagement at the lake front, and intends going on to Washington presently to conclude the treaty and get satisfaction somehow. They desire to sell half of the land, at any rate. In the meantime they are doing the grotesque war-dance every day at the armory, and Little Thunder, who was somehow mixed up with the Custer affair, tells what he knows about running soldiers into a trap and butchering the whole lot.

SHELTER BELTS.

We have something to offer as a substitute for the forest, to those of our fellow citizens who do not feel prepared to plant timber trees extensively and as a crop, more or less extensively, as it is done in thousands of instances by the landowners of Europe. We offer this plan to those who feel they cannot spare a single field from the plans and schedules they have laid down for a regular rotation of corn, oats, wheat and clover, or meadow lands—and also to those who may have on their farms no rocky ledges, no ravines, no steep hillsides, no odd waste corners, nor overflowed lands, upon which they might advantageously plant trees. They are not asked to give up a single field and turn it into woodland; but even they who are so happily situated as to the cultivable character of their lands may yet find it greatly to their advantage to plant trees in the manner which is now to be explained. It will be all the more desirable that they should do so, if their farms be surrounded on all sides by other lands equally well adapted to arable crops, and equally free from the waste places so often found on many farms, and which are almost utterly profitless, though always counted in as so many acres by the assessors in making up the tax duplicate.

In such a territory of fertile champaign country, where every farmer in a wide neighbourhood is similarly inclined to crop his whole farm, and where all desire to reap the golden harvest from every acre of which he may be possessed—just there is the great danger of our finding out some of these days that we have too much cleared land in contiguous tracts; just there we are liable practically to turn our woodland into a prairie—as in many parts of the country we are rapidly reaching such a consummation.

Just there, too, is the place to institute means that shall obviate the danger which threatens. This is not to be done by relegating a single one of these farms back to forest growths. No one shall lose anything by cruel edict, but each for himself, and all collectively, are promised the full fruition of the benefits that will accrue to those who accept the advice and adopt the plan, which consists in a system of tree belts across the whole township, and across or between the several farms.

These shelter belts and wind-breaks, though occupying a portion of the land, will add materially to the productiveness of the soil that is retained in cultivation, and they will in no small degree modify the local climate, which an extreme amount of clearing has already affected by the exposure of such broad contiguous surfaces to the influence of the scorching sunshine, and to the drying and blasting winds.

On the broad and open expanse of surface of the treeless plains of Iowa, where in the northwestern half of the state there is but one acre of woodland to a mile square of 640 acres, these shelter belts have been fairly tried by those who were bold enough to settle in such exposure. Among them, Mr. C. E. Whiting has been one of the first and the most extensive planter of trees upon this plan, and for the purpose of modifying the local climate, and in this he has been successful. Mr. Whiting declares that he can well afford to plant the trees and to give up the land they occupy, independently of the fuel they already yield him, and the wood for many economical purposes upon his farm, the remaining four-fifths of the land still occupied by his crops will yield him better returns than the whole area would have done if it were all cultivated to the extreme outer boundaries, but exposed to the elements, and not thus protected by these artificial shelter-belts.

This kind of tree-planting serves the double purpose of replacing the forests which have been destroyed and of modifying the climate. First—It produces wood for fuel and lumber. Second—It also modifies the climate.

These shelter belts are particularly adapted to level tracts of fertile lands devoted to agriculture, and the broader the area of such lands the greater becomes the necessity for their protection in this way, just as they are needed in the prairie regions.

The planting of these shelters does not supersede the necessity of tree-planting also on the waste places, ravines and corners, where they exist; by all means, let that good work also be done, to supplement the belts in our efforts to replace a proportion of the forests we have destroyed.

Here, as elsewhere, in all our artificial forestation, planting directed by human brains is better, and the results will be more satisfactory, than trusting to natural reproduction, for it enables us to do the work more thoroughly, more evenly and more judiciously, since we can make a selection of the species best adapted to our soils, and best fitted to our necessities, whether for their sheltering effects or for their ultimate wood products.

If, as of necessity on the prairies, you desire to produce an immediate effect in the shelter, you can be gratified by planting the trees of most rapid growth, even though they be of inferior quality. The outer rows of the wind-break may be set with these kinds, and next to them may be placed those of slower growth, whether deciduous or evergreen. Or you may have the effect you desire at first, and better trees afterward, by planting intermediately such as will be coming on more slowly to take the place of the fast growers when they are removed. This will be true of oaks and hickories or walnuts, planted among poplars and other rapidly growing kinds.

The evergreens should not be mixed with deciduous trees either in the belts or in the groves, but they should always be massed by themselves and planted in separate rows, if we desire them to succeed. In some cases it may be desired to use the evergreens exclusively; and for mere shelter, particularly in winter, they are exceedingly effective, and a double or quadruple belt will yield more shelter if set with Norway spruce, or some of the pines, than ten rows of almost any of the deciduous class.

The preparation of the land for the shelter belt should be as thorough as for a crop of grain, and done, of course, with a plow and harrow. Furrows or marks are made at intervals of four feet to receive the plants, which may be set closely as in other plantations, especially as we desire to break the force of the winds as soon as possible.

A single row of trees, especially if they be of evergreen species, will yield a comfortable shelter, but to be effective, and in exposed situations, several rows should be planted occupying a strip of some four to eight rods in width.

The cultivation should be thorough to encourage the rapid and healthy growth of the young trees, and it should be continued until the plants entirely shade the ground—a varying period, depending upon the character of the trees, and in part upon the breadth of the foliage.

Until the trees have attained sufficient size to protect themselves, it will be necessary to exclude all domestic animals—or, indeed, these should never be admitted to the plantations.—*Dr. J. A. Warder.*

ARRIVALS IN THE CLYDE.

The *Timber Trades Journal*, of July 22, says: The Norwegian barque Dronnigan, 838 tons, Captain Anderson, arrived in the Clyde with a cargo of timber from Quebec. She was the first arrival of a timber-laden vessel from the St. Lawrence this season. She sailed from Quebec on the 14th of June, and made the passage in thirty days. The East, 1,153 tons, Captain Lochead, arrived on the 15th inst. She sailed on the 15th June, making the same length of passage as the Dronnigan. The ship Abbotsford, 1,177 tons, Captain Williams, also arrived on Saturday, but as she sailed on the 9th June she was six days longer on the passage than the Abbotsford. All the masters report the winds strong and variable. The first arrival in the Clyde from Quebec last year was the ship Boyne, 1,350 tons, Captain Rae. She arrived on the 17th of June, and the Ajmeer, Captain Oswald, on the 28th June. In 1880 the Orleans, Captain Cloutier, arrived on the 30th of June. The fleet this year will be much later in arriving than usual, owing to the protracted passages they had out by being icebound.

Blowing Up Trees With Dynamite.

C. P. Markle & Sons, at Markleton, Somerset county, Pa., have a pulp manufactory, consuming spruce and hemlock timber. Their operations are large, and instead of practicing the slow method of chopping down trees and sawing them up, in order to get the wood into the pulp-mill, they blow them to splinters with dynamite. An eye-witness thus describes the process:—A fine large spruce was selected, and a hole was driven in about 10 inches, the chips were removed, and a dynamite cartridge was inserted. The dynamite comes in sticks like a candle and resembles moist brown sugar. A fuse was attached, and the men sought a place of safety. In a few seconds there was a mighty roar, and the great tree was lifted up in the air about 10 feet, and then with a swoop and crash it came to the earth, splintered half way up the trunk. Dynamite is not cheap, but, taking into consideration the time, labor, wear and tear of tools saved, is not as expensive as might be supposed.—*Northwestern Lumberman.*

THE *Timber Trades Journal* says we understand that a firm of large timber importers have decided to bring forward their goods in future as far as possible by steamers, and that special arrangements have been made so as to permit of several steamers being discharged simultaneously. The new system inaugurated, of bringing forward as much as possible by steamer, carries with it two decided effects. The most important is that the bulk of the timber imported will in the near future be brought over in English bottoms; the second is, that the doing of trade by the smaller importing houses will in many respects be rendered more difficult.

THE Ottawa *Citizen*, of August 2nd, says:—There was a jolly party assembled at the foot of the locks yesterday to enjoy raftsmen's fare on a splendid raft of timber which had been brought from Victoria Creek. The raft is in charge of Mr. J. McIver. This is the first raft that ever came through the Victoria Creek—300 miles above Ottawa—the firm of R. & J. White having spent upwards of $30,000 to enable them to get their timber through. The above improvements were under the supervision of Mr. J. S. Poupore, who is the agent for the firm. There are about 130 cribs of first-class pine lumber in the raft. As the steamer *Rover* swung the raft—about two and a half acres in dimension—out of the bay it was a grand sight. The cabins comprised a village in themselves,

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to July 28:—

	1880.	1881.	1882.
Waney White Pine	875,765	832,949	739,677
White Pine	1,812,708	2,350,871	2,589,094
Red Pine	388,822	603,393	392,896
Oak	824,866	1,535,533	643,069
Elm	662,508	778,979	441,896
Ash	174,250	250,436	156,081
Basswood	96	3,069	256
Butternut	448	897	1,960
Tamarac	15,204	5,849	1,427
Birch and Maple	554,483	123,232	262,273
Masts	....	....	33 pcs
Spars	....	....	....
Std. Staves	12.3.0.6	160.2.1.13	237.3.2.15
W. I. Staves	224.9.1.9	193.8.1.7	604.1.0.0
Brl. Staves	....	....	10.6.3.4

ALEXANDER FRASER,
Deputy Supervisor.

Quebec, 28th July, 1882.

RAFTS ARRIVED.

The Quebec *Chronicle* gives the following list of rafts &c., arrived:—

July 24—Thomas Tetu, deals, Black River.

Sundry lots, deals, South Quebec.

July 27—R. & W. Conroy (2), red and white pine, Dobell & Co's cove.

Bell & Hickey, red and white pine, St. Lawrence docks.

A. & P. White, red and white pine, Cap Rouge.

Ross Bros., deals, Buckingham.

J. B. Dickson, white and red pine, Cap Rouge.

R. Campbell & Son, white and red pine, Cap Rouge.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly as to its wonderful effects.

WE CONTRACTED to insert Mack's Magnetic Medicine because we were assured that the firm was composed of reliable and honorable gentlemen, and also because the medicine was recommended as being all and more than the advertisement claimed. We are informed by druggists that it is the best selling article they have, and that it gives satisfaction to their customers. See advertisement in another column.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

C. BRITTON, Lindsay, Ont., writes:—"I have much pleasure in recommending Baxter's Mandrake Bitters in all cases of Jaundice, Biliousness, Sich Headache and Liver Complaint, for they have given universal satisfaction, and I have sold more of them the past season than any other one patent medicine."

AMERICAN
FORESTRY CONGRESS,
MONTREAL MEETINGS,
AUGUST 21st and 22nd, 1882.

PATRON:
HIS HONOR LT. GOV. ROBITAILLE.

All interested in the subject of Forestry are invited to attend the Meetings and participate in the proceedings.

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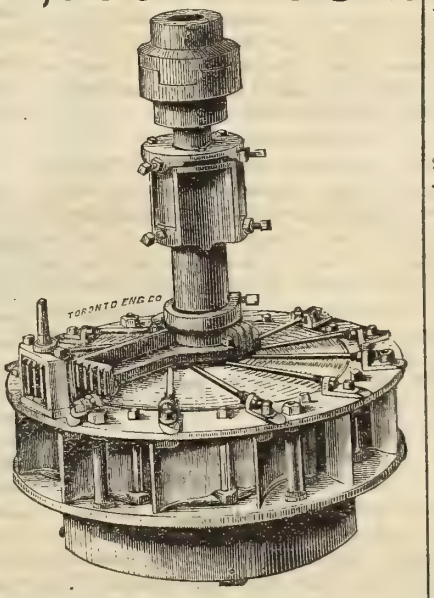

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Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. AUGUST 15, 1882.

THE forest acreage of Pennsylvania is one-fourth of the total in the state.

A STICK of pine 82 feet long was hauled into Manistique, Mich., the other day, to make a mast for the "Fulton."

THE latest parts of *Picturesque Canada*, namely the ninth and tenth, deal chiefly with the lumbering industry. A chapter is especially devoted to this subject, and the various scenes in the forest and on the river are illustrated by beautiful engravings.

THE *Northwestern Lumberman* says:—Across the water devices are often adopted which would do credit to an ingenious Yankee. Timber floats are constructed to take the place of docks, in order to avoid the dues imposed, and one at Queensborough, Eng., has been recently brought into service for the receipt of lumber, mainly pitch pine.

THE order-in-Council for the collection of tolls on saw logs and timber passing the Carillon dam is rescinded, and the sums collected are ordered to be refunded, as it appears that the dam, instead of facilitating, retards the descent of timber, and was built for the purpose of increasing the supply of water to the Carillon and Grenville canal.

THE *Northwestern Lumberman* says:—A white worm about three-fourths of an inch long is destroying the foliage of hackmatack and fir trees in certain sections of Maine. The trees appear all bare and brown, as though scorched by fire. It is thought that this worm is identical with the one that has destroyed so many acres of valuable spruce trees on the coast.

Gen. R. A. Alger, M. S. Smith and J. S. McCaul have formed a corporation known as the Manistique River Improvement Company, with a capital stock of $20,000, held entirely by themselves. They propose to expend considerable sums in improving the navigation of the Manistique river for the lumber trade in the counties of Schoolcraft, Mackinaw and Chippewa.

THE Parsboro' correspondent of the Chignecto, N. B., *Post* says:—Immense quantities of logs are yet at the mills unsawn—at Halfway Lake steam mill, notably. Over 20,000,000 feet of lumber has been shipped from our shores this season. The lumber business is panning out, so is the timber from our forests. We are going down in the mælstrom of American speculation.

THE *Timber Trades Journal* says a large sailing ship load of spruce of 500 to 600 standards has been placed in Liverpool at £7 5s. c. i. f. Since the completion of this contract it is said that spruce has been stiffening in the market. The great amount of spruce that will this year be brought into Liverpool by steamers will prove to be one of the most prominent incidents of the year's trade.

MESSRS. J. & G. K. WENTWORTH, of Vassar, who are conducting heavy lumbering operations on the Chippewa, the *Times* says are still hauling large quantities of logs to the stream over their private railroad. They have put in over 11,000,000 feet thus far this season, and will soon increase their business by the addition of more men to their working force. The Wentworths are an enterprising firm, and conduct operations on a huge scale.

IT is estimated by Professor Brewer, of Yale College, that there may be 800 species of wood plants growing native in the United States, of which about 300 attain a height of 30 feet and 250 are tolerably abundant somewhere. Excluding semi-tropical species on the extreme southern border, and some others that are rare, there would still remain about 120 species, of which about 20 grow to 100 feet, 12 to 200 feet, and 5 or 6 to 300 feet or over. Of these 120 about 50 are conifers.

THE *Timber Trades Journal* says the cheapness of pitch pine, coupled with its uniformly excellent quality, and the further fact that the logs can be procured with sawn sides, has had a most depressing effect upon Baltic hewn timber, almost driving the latter out of the market by the pressure of the competition which the employment of pitch pine has brought to bear upon it in recent years. Nor is it difficult to see that the competition is likely to decrease rather than to diminish in the future.

THE *Lumberman's Gazette* says:—The Roscommon lumber company are building twelve miles of logging railroad and will put 40,000,000 feet of logs into Houghton lake to be run to Muskegon. They are already at work in the woods. R. E. Cade & Son have just started in for an operation in the vicinity of Otsego Lake, proposing to skid 6,000,000 feet of logs before snow flies. T. J. Miller proposes to put in 40,000,000 feet of timber in the upper peninsula for Alger, Smith & Co., and has already started in to make his camps, etc.

THE FORESTRY CONGRESS.

Our readers should not forget the meeting of the American Forestry Congress at Montreal on August 21st and 22nd, under the patronage of His Honour Lieut.-Governor Robitaille. The proceedings are likely to be of great interest, and, we hope, of practical benefit. The invitations are very appropriately printed on wood, but by no means upon a shingle.

BIRD'S-EYE MAPLE.

To the Editor of the Canada Lumberman:

SIR,—Can you tell me what city would be the best market to sell some bird's-eye maple in, and what kind of lumber it would be best to cut it into? A friend in the north part of Michigan wants to get some out, but has no idea of its worth per M. feet board measure. Any information you can give will much oblige. I am an old lumberman and still feel an interest in the lumbering business of Canada. I think your valuable paper should be in the hands of everyone engaged in the lumber business. I see you hit things about right, and any information you give I believe can be relied on.

I am yours truly,
THOS. LINGHAM.

Belleville, Aug. 8th, 1882.

NON-COMBUSTIBLE WOODWORK.

Many processes have been discovered for protecting woodwork from burning, mostly by foreign scientists. Usually it has been attempted to gain this end by means of paint. Nickle's process, which has been used a good deal in Strassburg, consists in adding to the lime used for whitewashing an equal weight of chloride of calcium of 14 deg. B., and applying the whitewash in the usual manner. Another wash used in Westphalia consists of 2½ parts of salammoniac, 1 part of sulphate of zinc, 2 parts carpenter's glue, 20 parts of zinc white, and 30 parts of water. Patera in Vienna has used with success a mixture of 2 parts of gypsum and one part of sulphate of ammonia in three parts of water. J. P. Martin recommends 15 parts of salammoniac, 5 parts of boracic acid, 50 parts of glue, and 1½ parts of gelatine in 100 parts of water, to which is added enough pulverized lime to bring it to the proper consistency.

Schussel and Thouret have rendered wood incombustible by impregnating it with this mixture: To 16 parts of a phosphoric acid solution of 16 deg. B., and 2½ parts carbonate of ammonia, are added 6 parts of a solution of salammoniac of 10 deg. B., and 1 part of gum arabic. The dried wood is put into this liquid for at least twenty-four hours, then allowed to dry, and painted with oil paint.

There is no doubt that impregnation protects the wood from fire better than any kind of paint, and will no doubt become very important in the future. Probably the rather costly mixture of Schussel and Thouret may be replaced by other substances that are of scarcely any value for other uses, such as the still unused portions of the Stassfurt salts, and the enormous quantity of waste chloride of calcium made in some manufactures. Instead of saturating the wood by simply dipping it into the liquid, it would be better to force it in by atmospheric pressure. In a similar manner wood is already impregnated on a large scale to protect it from decay, and the works where railroad ties are prepared should not permit the preparation of fire-proof lumber for building purposes to slip through its hands. The same substances that prevent its burning also protect it from dry rot. It is to be hoped that the use of impregnated fire-proof lumber shall not be limited to theaters and similar buildings, but come into general use.—*Wood Worker.*

A LITTLE GAME.

The *Lumberman's Gazette* of Bay City, Michigan, says:—The "large-sized African in the fence' in connection with the "bear" movement of the Chicago lumber exchange is being divulged, and it is said to have been nothing more nor less than a preconcerted plan among that element to shove off a million or so of lumber at the pretended reduction, and hoping thereby to scare the Michigan manufacturers into a panic in order to stock up at the reduction, when they would stiffen up the Chicago market again and secure the advantage of the situation. But the gauzy transaction didn't materialize worth a cent, and the expected panic among the Michigan mill owners didn't pan out as expected; therefore the few big "bears" interested have complacently pocketed their losses and are wondering how it is that those Michigan fellows are so mulish that they refuse to "tumble to a racket" when it proceeds from Chicago.

TIMBER SUPPLY OF NEW HAMPSHIRE, VERMONT AND MAINE.

Forestry Bulletin No. 16 says that the estimated amount of merchantable timber standing in the state of New Hampshire May 31st 1880, is as follows:

BLACK SPRUCE.

Counties	*Feet.*
Carroll	60,000,000
Coos	1,000,000,000
Crafton	450,000,000
Total	1,510,000,000
Cut in year ending May 31, 1882	153,175,000

WHITE PINE.

The original white pine forests of New Hampshire are practically exhausted. Considerable areas formerly occupied by white pine, especially in the southern part of the state, have grown up again with this species.

No estimates of the amount of this second growth pine have been made, although it furnished a cut during the census year of 99,409,000 feet, board measure.

It is roughly estimated that the spruce forests of the state contain over 33,750,000 cords of hardwood and 165,000,000 feet of hemlock.

TIMBER SUPPLY OF VERMONT.

	No. of Feet.
Valley of Connecticut river	375,000,000
Green Mountain range	380,000,000
Total	755,000,000
Cut in year ending May 31, 1881	100,086,000

WHITE PINE.

The original white pine forests of Vermont are practically exhausted, and are only represented by a small amount of second growth, which furnished during the census year a cut of 6,505,000 feet board measure.

THE PINE AND SPRUCE SUPPLY OF MAINE.

	Pine.	*Spruce.*
St. John river and tributaries	75,000,000	1,400,000,000
Penobscot river and tributaries	100,000,000	1,000,000,000
Kennebec river and tributaries	50,000,000	1,000,000,000
Androscoggin river and tributaries	50,000,000	500,000,000
St. Croix, Machias, Narraguagus and others	200,000,000	500,000,000
Total	475,000,000	5,000,000,000
Cut for 1880, ending May 31st	138,825,000	201,020,000

Considerable areas in southern Maine are covered with second growth pine, not included in the above estimate, although furnishing a large proportion of the pine sawed in the state. Pine has been cut in every township, and the largest spruce has been removed from that state except from the inaccessible region about the head-waters of the Allagadash river.

The system of cutting only the large trees and carefully protecting the remainder prevails in Maine, and allows the forests to be profitably worked at stated periods, varying from 15 to 25 years. Their permanence is thus insured.

A CUSTOMS ORDER.

The Ottawa correspondent of the Toronto *Globe* says:—The lumbermen in this district are greatly exercised over an order which has recently been passed by the United States Customs authorities respecting Canadian lumber imported into that country. It appears that for years past Canadian boards have been admitted into the United States on their nominal measurement of one inch in thickness, but the greater number of Canadian boards it seems measures one inch and a quarter instead of one inch, as those manufactured across the border, and they were measured for their length and breadth, taking the thickness to be the same as Yankee boards. A short time ago some genius discovered the difference, and brought the matter before the American Customs authorities, who issued the order respecting the measurement which has proved so obnoxious to the United States importers of Canadian lumber. A number of barges from Whitehall, New York, Albany, and other American ports, which arrived here a short time since for loads, have not yet commenced to take in cargo, those in charge of them having received telegraphic instructions not to do so until they receive further orders. The new regulations will seriously affect freight rates between here and the United States. This matter is creating quite an excitement among the lumbermen of this vicinity.

DESPISED WOODS.

For a county of which it was said years ago that all the desirable timber was cut, (that is, oak and heavy sticks), Essex is shipping a remarkable quantity and variety of woods. Mr. T. A. Ouillette continues to send out ash, but tonwood, basswood and elm, to fill various contracts from Buffalo to Virginia. Railway ties are being shipped from Kingsville to Buffalo; lumber from Leamington to Detroit. The fact is, we are only beginning to learn the uses to which the despised firewoods of twenty years ago may be put; and to dispose of hickory to steamboats for $2 per cord, or ash at $1 per cord now-a-days, as was done in 1850 to 1860, a man would be considered as "green" as the wood he sells. We learn from the Amherstburg *Echo* that 25 tons of "bent stuff," made by Heard & Co., i. e., shafts, fellows and other

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Robertson Place, Smythe Street - ST. JOHN, N.B.

wooden parts of vehicles, were last week shipped by propeller eastward, destined for Montreal, Quebec and Halifax; while buggy spokes are going by the car-load to Sandusky, from Higgins Bros., of McGregor in the same county.

Timber Limit Sale.

The Ottawa correspondent of the *Globe* under date of August 10 says:—A large sale of timber limits took place this evening at the Grand Union Hotel. Considerable interest was manifested in the sale, and buyers were present from both Ontario and Quebec. The limits put up were understood by the knowing ones to be very valuable, but the bidding was rather dull. The Jean de Terre limits, consisting of Licenses Nos. 145 and 146, and comprising 50 square miles each, were started at $100 per square mile, and slowly bid up to $340, at which figure they were knocked down.

THE Lindsay *Post* says:—From Boyd's piling yard at Bobcaygeon a large amount of lumber has been taken. Six scow loads came in on Wednesday. R. C. Smith, of Fenelon Falls, is shipping some fine square timber. The rafts of logs are being transferred to the Midland cars at the loading point. A large quantity of shingles from the mill of Mr. W. Bick, Bobcaygeon, are lying on scows at the wharf. They will be hauled to Port Hope and shipped across the lake to American customers.

THE California forests are being sacrificed for leather. One of the handsomest trees in the state is known by the name of chestnut oak. It furnishes the only native bark suitable for tanning leather. The leather business has been unusually good for the last two or three years, and the consequence is, says the San Francisco *Bulletin*, that over large districts this beautiful tree is slashed down for the bark. The trunks are peeled and then left to decay. Great openings are made in the forests and the sun is let in, evaporating the moisture so rapidly that these trees do not propagate. The result will be that this immense waste will only terminate with the destruction of this tree and the decay of the fallen timber.

THE Chicago *Northwestern Lumberman* says: On the occurrence of a forest fire of much magnitude, the *Lumberman* receives letters from operators deploring the fact and suggesting that some means be employed to prevent such fires. That is just what this paper has been advocating for a good while. Whether any means shall be employed, though, rests entirely with the operators themselves. One thing is certain, no amount of whining or regret will prevent a single forest fire. It will require work well planned and systematically carried out. So far as the observations of the *Lumberman* have been made not a dozen operators in the Northwest are willing to spend the time and money necessary to insure their pine land against fire.

J. T. LAMBERT,

Lumber and Commission Agent.

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TRENT NAVIGATION

NOTICE TO CONTRACTORS.

THE letting of the works for the FENELON FALLS, BUCKHORN and BURLEIGH CANALS, advertised to take place on the second day of August next, is unavoidably further postponed to the following dates:—

Tenders will be received until **Thursday, the Twenty-fourth day of August next.**

Plans, Specifications, &c., will be ready for examination, (at the places previously mentioned) on **Thursday the Tenth day of August next.**

By order,
A. P. BRADLEY,
Secretary.

Dept. of Railways and Canals,
Ottawa, 15th July, 1882. 6d17 2L15

Welland Canal Enlargement.

NOTICE TO CONTRACTORS.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for the Welland Canal," will be received at this Office until the arrival of the Eastern and Western Mails on FRIDAY, the 1st day of SEPTEMBER next, for the deepening and completion of that part of the Welland Canal, between Ramey's Bend and Port Colborne, known as Section 34, embracing the greater part of what is called "Rock Cut."

Plans showing the position of the work, and specifications for what remains to be done, can be seen at this Office, and at the Resident Engineer's Office, Welland, on and after FRIDAY, the 18th day of AUGUST next, where printed forms of tender can be obtained.

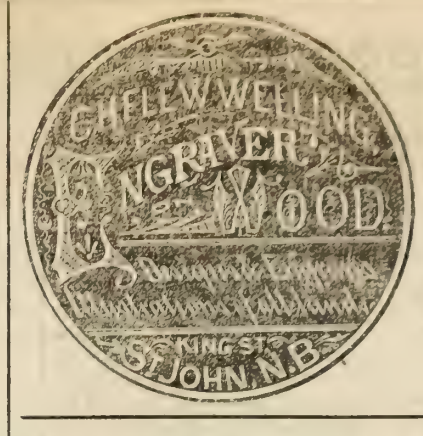
Contractors are requested to bear in mind that tenders will not be considered unless made strictly in accordance with the printed forms, and, in the case of firms, except there are attached the actual signatures, the nature of the occupation and place of residence of each member of the same; and further, an accepted bank cheque for the sum of *four thousand* dollars must accompany the respective tenders, which sum shall be forfeited if the party tendering declines entering into contract for the works, at the rates stated in the offer submitted.

The cheque or money thus sent in will be returned to the respective contractors whose tenders are not accepted.

This Department does not, however, bind itself to accept the lowest or any tender.

By order,
A. P. BRADLEY,
Secretary.

Department of Railways and Canals,
Ottawa, 15th July, 1882. 6d15-1aw 2L15



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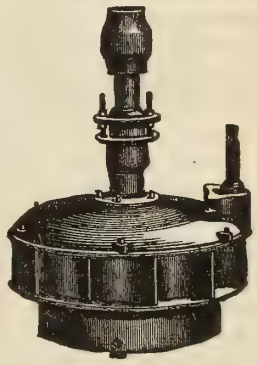

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1L18

AMERICAN FORESTRY.

It is both interesting and gratifying to see that there are representative men, occupying positions of influence and power, who are alive to the importance of preserving, and in some places of restoring, the wood-lands of America. It is so natural and easy for men to become absorbed in the study of what seem to them, and are, great questions of state policy, questions affecting the interests of commerce, manufactures and national prosperity which have engaged the attention of statesmen in all civilized countries, and will necessarily engage it to the end of time, that when an effort is made to interest them in a subject such as this of forestry they are slow to be convineed that it is a matter that should engage their attention, and are disposed to look upon those who have studied the subject as enthusiasts. But men who can take broad views of national interests soon find that this is a subject which touches the national prosperity at many points. That it has most vital connection with commerce, with manufactures, with the supplies of food, with the health and the life of a people. Among such men stands prominently then Hon. Mark H. Dunnel, of Minnesota, whose speech in the House of Representatives of the United States is replete with earnest words, most valuable information, and an evident, appreciation of the importance of the subject. From his speech we learn that in February, 1874, a committee of the American Association for the advancement of science brought a memorial from that body to the President of the United States, urging the duty of Government concerning the cultivation and preservation of forests, and recommending that a commission should be ordered to mature plans calculated to meet the requirements of the subject. The President laid this memorial before Congress, which resulted, in 1876, in the appointment of Dr. Franklin B. Hough, of Lowville, New York, to the duty of ascertaining the annual amount of consumption, importation and exportation of forest products, the probable supply for future wants, and the best means for the preservation and renewal of forests; the influence of forests upon climate, and the measures applicable in this country for the planting of forests.

In pursuance of this appointment, Dr. Hough made two reports to Congress, one in 1877, the other in 1878-9. Of the first of these an officer of the Wurtemberg forest service says:—"It awakens our surprise that a man, not a specialist, should have so mastered the whole body of American and European forestry literature and legislation."

From this speech we also learn that the quantity of pine lumber produced in the State of Maine has steadily declined from an average aveage of 100,000,000 of feet per annum in 1851 to 1855 to an average of 11,800,000 per annum in 1876 to 1881; that the timber supply of the upper peninsula of Michigan, at the rate of production in 1879, will last *eighteen* years; that of the lower peninsula will last seven years; that of the State of Wisconsin scarce *twenty* years; and that of Minnesota about *eleven* years; and that at the rates of present consumption in the North-West, the whole supply of the timber of the United States would last about *seventeen* years. Hence he concludes that it is the duty of Government to inquire how far it can withdraw remaining timber lands from market and place them under regulations that shall secure the greatest present benefit from the use of timber now fully mature, having regard to the requirements of the future, and to ascertain how to impress upon private owners the importance of planting, and how far and in what manner it may encourage this object. To this end he advises the establishment of experimental stations for the careful study of the requirements and capabilities of soils, and of the several kinds of trees, and publish the results in a form particularly calculated to impress their importance, and to teach the simplest rules for securing success. He concludes his very interesting and instructive speech by saying:—

"We are using up the capital which nature had for centuries been providing for us in the growth of forests, and we are doing nothing to restore them. Under skilful management the supply might be so arranged that in twenty-five or thirty years for some kinds, and in fifty or sixty years for others, a new crop would be furnished by growth; and if only a twenty-fifth or thirtieth part of the former, or a fiftieth or sixtieth part of the latter, were taken yearly, the supply would be perpetual. But instead of of this, we are taking a tenth or twentieth part every year, while the growth from our neglect is not a fourth part of what it should be where any growth is allowed.

"We shall only too soon be reminded of the consequence of this improvidence in the growing prices of lumber, which in some kinds have already doubled within a very few years, and which are advancing every day. These advances may be ascribed by some to speculation, and doubtless to some extent they are, for the speculator never loses a chance to turn a penny in his favor, it matters not who suffers; but when these advances are steadily going on from month to month, and year to year, at an accelerating rate, it means that the intrinsic value of the commodity they represent is becoming greater under the combined effects of diminishing supply and increasing demand. It will inevitably lead to the realizing conviction that there is profit in growing timber, and the sooner this is understood and acted upon the better will it be for the country and for the future."

The large gatherings of influential and representative men which recently took place in Cincinnati, embracing not only scientists, whose special duties have led them to understand the importance of this subject, but also members of state and national legislatures, leading agriculturists, and the chief of the national Agricultural Bureau, this gathering is a cheering evidence that our neighbors across the border are becoming aroused to the importance of this subject, and that steps will be taken to prevent the needless destruction of their forests, and to secure the planting of woodlands as a branch of economic industry.

It is very gratifying to us as Canadians to know that the Honorable the Commissioner of Agriculture for Ontario is fully alive to the great importance of this matter to us, and that he is using every means at his command to procure and diffuse information on this subject, and to encourage the planting of forest trees for timber, shelter and fuel, wherever it can be done with advantage.

Doubtless our own forests are disappearing as rapidly as those of our neighbors under the united ravages of the woodman's axe and the devastating forest fires. Already some parts of Ontario are beginning to suffer from want of a due proportion of the woodland in the diminishing volume of her springs and streams in protracted summer drouths, and in the unbroken sweep of frost-laden winter winds. It is time, full time, that public attention be turned to this matter; that something be done to limit the annual cutting of lumber, so that it shall bear a proper relation to our present supply and present needs; that measures be taken to prevent wholesale destruction by forest fires, and that planting be commenced without delay on lands suitable for the purpose, with a view to keeping up the supply perpetually, and of preserving the proper proportion of woodland, so as to save us from those climatic changes which are sure to follow the denudation of the country, bringing in their train drouths, excessive floods, sterility, famine and pestilence.—*Canadian Horticulturist.*

INTERNATIONAL TRADE.

The *Northwestern Lumberman* says:—A good deal of the lumber which the mills of the northern states are turning out goes to meet an already active and developing demand in the Dominion, with which the comparatively few Canadian mills cannot keep abreast. So much emigration has tended to Manitoba, and other provincial sections, that the results of the emigration boom which has been so marked this year, have not been so much felt in the northwestern states. That there is a building boom in Canada there can be no doubt, for there are facts in open view which demonstrate it. As things are conditioned now, however, what affects the Canadian lumber trade has a healthful influence upon the markets of the United States, and this benefit may be more widely operative than may be thought. For instance, the upper Mississippi supplies are drawn on quite extensively, and we have already noted a large sale of dry lumber going from Chicago to Winnipeg, which was recently made. The enterprise of constructing portable houses is still actively prosecuted in Canada, the industry being particularly prominent in Quebec, Ottawa, Belleville, Hamilton, and other main points, and among them competition is lively. So great, however, is the need for shelters that there is almost an enormous demand for tents, which are used in lieu of better habitations. It is told that in and about Winnipeg alone there are more than 3,000 people living in tents, and the plan has been adopted to more or less extent over a wide section. This is all very well during the summer weather, when Old Sol makes things genial, and sometimes red-hot, but persons can not successfully abide here in tents during the winter months, and Canada is still farther towards the north pole. The fact is, all these tent-abiding people must be provided with structures before the cold weather sets in, and we opine that a very respectable share of those provincial prospectors will sleep under American pine in the future. On account of the growing scarcity of dry stocks, what building is now prosecuted consumes largely green lumber, and it is often a case of Hobson's choice.

A LARGE PURCHASE.

The *Lumberman's Gazette* says:—The American Lumber Company has purchased from the Detroit, Mackinac and Marquette Railway Company the standing pine on its entire land grant, except Mackinac county and the east part of Chippewa county. This comprises some 500,000 acres, and it is expected the yield will amount to several hundred million feet of pine. This company has also purchased of the same company about 75,000,000 feet of pine on the Tquaquanenon river, in Chippewa county. It It has also purchased about 150,000,000 feet on the waters tributary to Ontonagon river. This gives the company the entire control of the largest body of pine in the northern peninsula.

A mill with a capacity of 100,000 feet per day is now being erected at Newberry, Chippewa county, on the line of the railroad, and it is the intention to cut about 14,000,000 feet during the coming winter. Another large mill near Escanaba is contemplated. The American Lumber Company is composed of Scotch and Canadian capitalists. The head offices are in Toronto. H. H. Cook, M. P., A. MacKenzie, Robert and John M. Dollar, and J. S. Lockie, all of Toronto, are resident directors. The headquarters in the northern peninsula will be Marquette. Robert Dollar will be general manager at that point.

OBSTRUCTING MILL STREAMS.

The Bay City *Lumberman's Gazette* says:—This bit of law comes to us through Bradstreet's: A, the owner of a mill, filed a bill to enjoin B, who had a mill to manufacture lumber and clothes pins above that of A on the same stream, to prevent him from discharging his saw dust, shavings and refuse into the stream, so that they were carried by the current into A's pond in such quantities as to cause him considerable expense to remove this waste, and interfered seriously with the profitable use of A's mill. In this case the supreme court of Vermont granted the injunction, the Chief Justice (Royce), in the opinion, saying: "While it is true a manufacturer has the right to appropriate and use the water of a stream in a proper manner, it is equally true that he must respect and regard the rights of riparian proprietors below him; and while such owners must submit to such inconvenience and injury as may result from such use, they are not compelled to submit to injuries which are not necessarily occasioned thereby. Such injuries as are incident to, and necessarily result from a proper use of the water, must be borne, but the manufacturer has no right to do any act that in its consequences is injurious to others, because it is a matter of convenience or economy for him to do so. It is as much the duty of a manufacturer to so dispose of his waste as not to injure others, as it is to refrain from injuring others by any other act. No one is allowed to deposit any substance in a running stream that will pollute its waters, to the injury of riparian proprietors below. Neither has anyone the right to deposit any other substance in such a stream, beyond what is absolutely necessary to a beneficial use of it, to the injury of mill owners or the lands through which the stream may run. It would be manifestly unjust to hold that a manufacturer could so conduct his business as to seriously impair the value of the rights and property of manufacturers on the same stream below, and injure or perhaps ruin the lands of riparian owners, without accountability, upon the showing that it was more convenient and economical to him thus to conduct it. The acts of the defendant in depositing the waste made at his mill in the manner we have found it has been done, were illegal, and a perpetual injunction will be issued enjoining him and his heirs, executors, administrators and assigns from so disposing of it in the future.

AUSTRALIAN TIMBER TRADE.

Messrs. C. S. Roés & Co.'s latest report from Melbourne states that the arrivals of timber and building materials continued heavier than the demand for consumption, and prices had in consequence declined, especially in American lumber and British shipments of red deals. The arrivals for the past month have been per *Aldergrove*, *Macbeth*, *British Enterprise*, and *Gulf of St. Vincent*. The parcels ex ships from Great Britain (which were landed in the usual bad order of such shipments) have been sold at prices which leave a heavy loss to the importers, and this result will always follow, as our buyers require timber in bright condition. The *Pacific's* cargo from Gefle was ordered on 12th May, resulting in the sale of 4,000 pieces at from 6d. to 5 1-16th d. per foot 9 x 3, the balance being withdrawn at the latter figure. The stocks in hand are much larger than usual at this season, and as they are weekly being added to from Great Britain, the prospect for shipments en route are not favorable to profitable results. The *British Queen*, from London, arrived at Adelaide last week with a cargo of 38,000 pieces red deals and battens, and was ordered on to Sydney. Our advices from Sydney reports sales of small parcels of London shipments at 3¾d. to 4½d. per foot 9 x 3, for 3rds. The *Ravenswood* from Glasgow, *Mistley Hall* and *Ann Millicent*, from London, and *Hospoda*, are reported at the Heads.

A Good System.

The census office at Washington has just issued a bulletin, giving some interesting figures showing the estimated amount of merchantable pine and spruce standing in Maine, New Hampshire and Vermont, May 31, 1880. The statistics for Maine show that 475,000,000 feet of pine and 5,000,000,000 feet of spruce, board measure, were standing in the census year, and that 138,825,000 feet of pine and 301,020,000 feet of spruce were cut that year, including 6,000,000 feet of pine and 49,000,000 feet of spruce cut on St. John River, but sawed in New Brunswick. Considerable areas in Southern Maine are covered with second growth pine not included in the above estimate, furnishing a large proportion of the pine sawed in the state. Pine has been cut in every township, and the largest spruce has been removed from the state, except from the inaccessible region about the head waters of the Allagash River. The system of cutting only the large trees and carefully protecting the remainder prevails in Maine and allows the forest to be profitably worked at stated periods, varying from fifteen to twenty-five years. Their permanence is thus insured.

The Superintendent in Love.

Supt. E. J. O'Neill, of the Dominion Police Force, Ottawa, Canada, thus spoke to a representative of one of Ottawa's leading Journals: "I am actually in love with that wonderful medicine St. Jacobs Oil. I keep it at home and likewise here in my office; and though my duty should call me hence in an hour to journey a thousand miles, St. Jacobs Oil would surely be my companion. It is the most wonderful medicine in the world, without any exception. I believe. My entire family have been cured by it. We have used it for twenty different ailments, and found it worth half a score of doctors. My men here on the Dominion Police Force, use it right along and very justly think that there is nothing like it. I believe it is the long sought *Elixir Vitae* and possesses the power of making the old, young again. I know it often enlivens me, and although I am past fifty years of age, I am, thanks to that wonderful agent, a lively man yet.

Chips.

A STEAMER is being built at Oconto, Wis., for picking up logs along the shores of Green Bay.

A LARGE number of Americans are visiting the Thunder Bay regions north of Lake Superior prospecting for timber and minerals.

THE Two Rivers, Wis., Lumber Company have a log scow with steam machinery for taking logs out of the water and loading them on the scow.

THE Chignecto, N. B., *Post* says :—It is said that Mr. Alex. Gibson will pile some 15,000,000 feet of lumber at the Straight Shore, St. John, this season, to be held for higher prices.

THE *Timber Trades Journal* says a parcel of over 1,000 standards, per steamer, said to be the largest cargo of spruce yet shipped to Liverpool, has been sold by a firm of brokers to an import house there.

IN the return of exports from the port of Trebizond, given in the report of Consul Biliotti for 1881, we find there were 8,898 cwts. of boxwood, valued at £2,660, sent to Great Britain ; and 272 cwts. walnutwood valued at £544.

THE uses of pine are many, and it is told that the needles of the Silesian forests are capable of conversion into what is termed forest wool, which, besides being efficacious in cases of rheumatism, can be curled, felted and woven.

THE *Northwestern Lumberman* says the saw mill at Butternut, Wis., has been enlarged, 60 feet being built on the north end, making it 120 feet long, and a shingle and lath mill has been added. The capacity for next season is placed at 10,000,000 feet.

THE Brighton *Ensign* says that Mr. Chester Loomis of Newcombe Mills has completed a shipment of 47,000 feet of basswood, ash, and elm lumber to the Upper Canada Furniture Company, Bowmanville. He got $13 per M. delivered at the factory.

THE Stirling *News-Argus*, of July 28th, says : Immense numbers of logs have passed down the Trent within the past few weeks. The mouth of the river is now fairly choked with logs, about a hundred acres of space being covered with a perfect jam. It is a sight not often seen.

Mr. BOLDUC, M.P. for Beauce, has purchased from the Quebec Seminary extensive timber limits in Montmorenci County, and will, it is said, erect large saw mills at which 10,000,000 feet are expected to be cut annually for export to England. The timber on these limits is chiefly spruce.

THE *Northwestern Lumberman* says a representative of Noble & Little, Ashland Avenue and 22nd street, has been in Manitoba working up a little new Northwestern boom for his house. He went for pleasure only, but managed to make a sale for anywhere from 50 to 75 carloads of lumber.

THE *Lumberman's Gazette* says :—We have heretofore referred to the fact of the enormous immigration pouring into the eastern states ; and on it we have based our faith for a permanent demand for lumber, which would inevitably be continued, as it is an imperative demand which cannot possibly be ignored.

THE *Northwestern Lumberman* says a huge raft, comprising 1,000 telegraph poles, arrived at Monroe, Mich., lately, from which point they are to be distributed along the line of the Lake Shore & Michigan Southern road. Two more of these large rafts are expected, the poles coming from the shores of the Georgian Bay.

MESSRS. C. T. BRANDON & Co. have received from Winnipeg, Manitoba, a large order for common lounge frames, step ladders, camp stools and small express wagons, which are to be shipped knocked down in box cars from Toronto. Quite a large trade it is expected will be done with the Prairie Province in these goods.

THE Quebec *Chronicle* says our timber market remains as inactive as it has been during the past few weeks, and we do not hear of any transactions worth noticing. Rafts continue to arrive and are placed in the different commission booms, for sale. But it is generally expected that they will remain unsold for the next few weeks, and that little timber will change hands before September.

A NORTH CAROLINA darkey was agreeably astonished, recently, at beholding a lot of gold coin roll out of an old log he was splitting. There were 26 eagles in all, and it is thought the money had been in the tree about a quarter of a century. If the trunks were always that way, there must be some valuable stumpage around that section.

THE *Timber Trades Journal* says there has been shipped from Quebec during the last few years a considerable quantity of 1st, 2nd, and 3rd quality yellow pine boards, from 9 to 12 and 13 inches broad, of various thicknesses. These boards have been found by users of pine wood to be exceedingly economical, and the quality of them invariably good. They are fuller in the various thicknesses than are boards of similar widths which are cut from 3 in. deals. There is a further advantage associated with them, viz., the saving of the cost of sawing ; hence, the importation of these boards is almost certain to increase considerably.

THE *Timber Trades Journal* says the old and new state of affairs in respect to the wood-carrying trade have had a somewhat whimsical illustration afforded them at one of the north country timber docks. There, sheltered under the prow of a huge wood-laden steamer, was to be seen a modest little craft of 60 tons burden, discharging Norwegian pit-props. The little vessel was crudely built, in a home-made fashion, her masts, scarcely straighter than the rough cut props that she was discharging from her hull, and her general style and build illustrative of those daring little crafts of our ancestors that in the seventeenth century patiently made their hazardous voyages amidst the perils of the Baltic.

THE *Lumberman's Gazette* says the forestry bulletins which show, by maps, the contracting areas of timber lands, are calculated to encourage the protection of growing timber now so recklessly sacrificed in the west. Notwithstanding the efforts of the government to encourage the growth of forests by the tree-claim plan, the necessity of more and larger trees is felt, especially in those sections where lands have been entered on tree claims. A party of Colorado citizens were forced to ride six miles to find a tree suitable for the hanging of a horse thief. Such a lack of timber for a necessary and imperative demand in Colorado, is entirely inexcusable, and in order to remedy such a glaring want, concerted action is demanded, on the part of Colorado freemen.

THE Hull correspondent of the *Timber Trades Journal* says :—Speaking of large timbers, which is, in other words, speaking of American wood, we may notice a few "sticks" floating in the ponds of Messrs. R. Wade, Sons, & Co. There are three logs of Quebec pine—63 ft. 6 in. × 26¾ in. × 24¼ in., 286 ft. contents ; 43 ft. × 27 in., 205 ft. contents ; 42 ft. × 25½ in. × 24 in., 178 feet contents. These are closely matched with the following logs of Quebec white oak: 46 ft. 6 in. × 26½ in. × 26½ in., 227 ft. contents; 54 ft. × 25 in. × 24 in., 225 ft. contents ; 44 ft. 6 in. × 27. × 27 in., 226 ft. contents, which latter are free from wane. It is highly probable that these dimensions can be exceeded in Liverpool and London stocks, but we give them as examples of what are held here, feeling certain that our many Baltic friends, who are strangers to such logs, will be interested with the figures.

THE Liverpool correspondent of the *Timber Trades Journal* says the high prices demanded for Quebec timber meet with but little response from buyers, who, excepting for the very best of work, are taking to pitch pine for many purposes for which but a few years ago yellow pine only would have been used. The fact is that consumers will not pay the fancy prices that have recently been asked for this wood, and are substituting other and cheaper material for it, and until our Canadian friends can reduce their prices to something approaching former rates, they will have to be content with a very small demand from this neighbourhood, and that will be confined to the better classes of wood only. Already the common yellow pine timber, such as was formerly imported under the designation of building timber, has been entirely superseded by pitch pine, and oak timber is now being rapidly worked out of the market by the large quantities of cut waggon scantling supplied from the United States,

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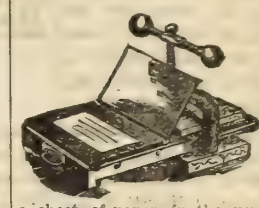

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Market Reports.

MONTREAL.

From our own Correspondent.

AUG. 10th.—There is very little to report this week. Prices continue steady as last reported, business has been very fair, the demand for building lumber has been good, and prospects are that it will continue so for some time to come. The market for walnut and almost all hardwoods has been active. Yard prices are as follows:—

Pine, 1st quality, ℔ M	$35 00@40 00
Pine, 2nd " ℔ M	22 00@24 00
Pine, shipping culls, ℔ M	14 00@16 00
Pine, 4th quality deals, ℔ M	11 00@12 00
Pine, mill culls, ℔ M	10 00@12 00
Spruce, ℔ M	10 00@13 00
Hemlock, ℔ M	9 00@10 00
Ash, run of log culls out, ℔ M	20 00@25 00
Bass, " ℔ M	17 00@20 00
Oak, ℔ M	40 00@50 00
Birch, ℔ M	20 00@25 00
Hard Maple, ℔ M	25 00@30 00
Lath, ℔ M	1 30@ 1 40
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 00@ 0 00

SHIPMENTS.

Exports are going on briskly, and there are at present 18 vessels in port chartered to load for South America. The rise in grain freights has had no effect on rates of lumber tonnage, which, however, are firm, but the demand is weak. We quote rates of freight to River Plate at $14.50 to $15, as to size of vessel. Deals are taken in considerable lots to the United Kingdom at from 6s. to 7s. 6d. The barque *Cupid*, which was damaged, is still at Quebec under repairs. Shipments from this port since the 24th ult. were:—To London, 30,000 ft. deals and 33,541 pcs. deal ends; to Bristol, 10,000 ft. deals; to Liverpool, 577,712 ft. lumber; to Cork, 10,000 ft. deals. The shipments to the River Plate since date of last report were 6 vessels, carrying 2,957,430 ft. The total shipments to South America since opening of navigation to date were 5,310,250 ft., against 4,736,541 ft. for same period of 1881, being an increase of 573,709 feet.

CORDWOOD.

There is not much to be said about this market. Prices keep high, but trade is rather slack. There is not a very heavy stock on the wharves, and if anything the tendency is upwards, which checks business. We quote ex cartage:—

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	6 00
Short "	5 50
Tamarack	4 50@5 00

TORONTO.

From our own Correspondent.

AUG. 9th.—There is not much that is worthy of record in regard to the movement of lumber at this point since I last wrote you. Shipments over our docks has been somewhat brisker during the last week, but not nearly up to anticipations, and from present indications the local consumption of lumber for this season will be fully one-half less than during the building season of 1881. Various causes are assigned for this falling off in our building trade; some say that the carpenters' strike in the early part of the season was the main cause, others affirm that the high price of material has the most to do with it; if the latter is the correct theory, real estate owners may rest assured that the day is past, never to return, when they will be able to purchase lumber at rates existing four or five years ago, and it is not difficult to determine why this advance in value of lumber must to a certain extent hold good. All the pine in our frontier townships has been cut off, and our nearest points for any considerable quantities of lumber, by rail, is now 100 miles, or over, on which the rates of freight is 8½c. per hundred weight, and in many cases the logs are brought from 20 to 50 miles by river driving, to the point of manufacture, so that it is quite useless and certainly not desirable to expect that lumber will again sell at any such figures as in the past. For my own part I don't think that either of the above reasons given for the slackness of the building trade are correct. The fact is building in this city has been overdone, and monied corporations have grown shy, and decline to invest, preferring to take their chances on farm property in Manitoba and elsewhere, although there is no doubt that land in many parts of this city has doubled and trebled in value during the last two or three years, and a healthier state for the building trade of our fair city will not tarry long.

Now although the retail trade keeps dull, there is no glut on our market, all the yards having light stocks, and nothing is forced on the local trade, neither will there be, so long as the American market is open to dealers, and fair prices ruling, so that I do not anticipate that manufacturers will be left with anything on their hands at the close of the season that cannot be disposed of at fair prices.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00

B. M.

1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1½ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅜ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ℔ M	2 50@3 00
XX sawn shingles	2 00
Sawn Lath	2 25

OTTAWA.

From our own Correspondent.

AUG. 8th.—As a result of the representations set forth in a petition from a large number of prominent lumbermen to the Minister of Public Works, that the tolls on the Carillon dam be rescinded, the latter has complied with the prayers of the petitioners, and issued an Order-in-Council to that effect. The following is the text of the order, which appeared in the last issue of the *Canada Gazette*:—

CERTIFIED Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 15th July, 1882.

On a memorandum dated 5th July, 1882, from the Minister of Public Works, submitting that certain rates of toll on saw logs, timber, &c., passing the Carillon Dam, on the Ottawa River, were established by Orders in Council of the 29th May, 1860, and 3rd May, 1882, and published in the *Canada Gazette*.

That representation is now made to his Department that the construction of the dam across the river, instead of facilitating, retards the descent of timber, from *two* to *three* days being now occupied in passing, whereas previously not more than *two hours* were required for the passage of rafts, and application has been made for the removal of the rafts in question.

That the dam was not built for the purpose of facilitating the descent of timber but to increase the supply of water to the Carillon and Grenville Canal.

The Minister, in view of the circumstances, recommends that the Order in Council in so far as provides for the collection of tolls at the Carillon Dam, be rescinded; the Acting Minister of Inland Revenue concurs in the foregoing recommendation and further advises a refund to the parties who have paid tolls during the present season of navigation.

The Committee submit the above recommendation for Your Excellency's approval.

JOHN J. McGEE,
Clerk, Privy Council.

I certify that the tolls heretofore collected on saw logs, timber, &c., passing the Carillon Dam, on the Ottawa River, under Orders in Council of 29th May, 1860, and 3rd May, 1882, have been this day removed by His Excellency the Governor General in Council.

JOHN J. McGEE,
Clerk, Privy Council.

Privy Council, 15th July, 1882.

The construction of the dam complained of causes a lengthy and inconvenient outlay in the navigation of logs and square timber to the Quebec market. Before the dam was built only about two hours were required for the passage of rafts; whereas at present from two to three days are required. The object of the dam is to increase the water supply on the Carillon and Grenville Canal. The Government's relieving lumbermen of the obnoxious toll will be considered somewhat of a recompense for the inconvenience existing.

THE SHIPPING TRADE.

An unusual dull spell exists at this port in the shipping trade. There is a large number of American boats lying at the docks awaiting loads, as many as forty being counted to-day. Rates have not materially changed. The cause of the dulness in the exportation of the sawn lumber is due in some degree to the enforcement of new regulations by the American Custom House authorities, which will no doubt affect the market to no small extent. Heretofore, it seems, the duty on Canadian board lumber was levied by the Americans, on the prescribed condition that the average measurement in thickness of the board was one inch. Our manufacturers, allowing for dressing, etc., have turned out their boards averaging one inch and a quarter. Taking the large amount that is exported annually, the amount of duty evaded by this quarter of an inch must have been considerable. Stringent orders have, however, recently been issued by the authorities to the Custom House officials on the other side to levy duty on Canadian lumber at its actual measurement.

The saw mills hereabouts are running in good order, the water being at a favorable height; in fact better than any other period this year.

ST. JOHN, N. B.

From our own Correspondent.

AUG. 8th.—Our lumber market is still very dull, owing no doubt to the very high rates of freight that vessels are asking now for Atlantic business, and spruce deals have still farther declined in price, and are selling at about $9 per M., being 50c. less than at the date of my last report.

Freights generally on this side of the Atlantic have advanced considerably during the past fortnight, and even the greatly increased rates paid at St. John have failed to draw a single vessels from any of the ports of call. Under these circumstances, and in view of the fact that vessels of a good class are in great demand for grain in the United States ports, and that ordinary vessels are much wanted at Quebec, where freights are considerably higher. It is most likely that there will be a still farther advance here.

Freights to-day may be quoted as firm at the following rates:—

Liverpool .....71s. 3d. c. d.
Bristol Channel .....70s. 0d. 72s. 6d. c. d.
Ireland .....70s. 0d. to 75s. 0d. c. d.

SHIPPING.

The following is a list of the vessels in port, with their tonnage, destinations and rates of freight:—

Calliope, 1,202, Liverpool, 61s. 3d. c. d.
Eurydice, 1,247, " 70s. c. d.
Missouri, 818, " 62s. 6d. c. d.
Arabia, 957, " 71s. 3d. c. d.
Lottie Stewart, 742, Bristol Channel, 70s. c. d.
Lepreaux, 769, Limerick, 65s. c. d.
Gloire, 1,138, Bordeaux, 60s. c. d.
Westmoreland, 218, Port Natal, £8 c. d.
Harriet Campbell, 649, St. Nazaire.
Fidelia, 450, Unchartered.
Belle Star, 353, Unchartered.

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881.			1882.		
Deals. M. S. ft.	*Pine. Tons.*	*Birch. Tons.*	*Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
117,223	768	2,962	117,594	359	3,890

VESSELS LOADING THIS DATE.

1881.		1882.	
Ships.	*Tons.*	*Ships.*	*Tons.*
28	21,721	11	8,543

BOSTON.

AUG. 5.—The *Journal of Commerce* says:—"There is a moderate and steady inquiry for pine and other soft woods, and prices keep along pretty even. There is considerable building going on and in contemplation for fall, and the outlook of trade is very good. Stocks are pretty well reduced at the yards, and more activity is to be looked for soon. The western primary points generally show quite firm prices. At Chicago there continues the irregularity in prices that has prevailed for quite a time. Advices from Albany report an agreement among dealers to advance prices on August 1st at the rate of $2 per M feet on shelving and above and $1 per M feet on grades below. The southern pine market remains rather dull. Hard woods keep along pretty evenly."

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@36 00

ALBANY.

Quotations at the yards are as follows:—

Pine, clear, ℔ M	$57 00@64 00
Pine, fourths	50 00@60 00
Pine, selects	52 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 38@00 44
Pine, 10-in. plank, culls, each	00 19@00 22
Pine boards, 10-in.	00 26@00 32
Pine, 10-in. boards, culls	00 18@00 19
Pine, 10-in. boards, 16 ft., ℔ M	25 00@30 00
Pine, 12-in. boards, 16 ft	25 00@30 00
Pine, 12-in. boards, 13 ft	26 00@28 00
Pine, 1¼ in. siding, select	38 00@40 00
Pine, 1¼-in. siding, common	15 00@19 00
Pine, 1-in. siding, select	40 00@42 00
Pine, inch siding, common	16 00@19 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 11@00 12
Hemlock, boards, each	00 00@00 13
Hemlock, joist, 4x6, each	00 00@00 31
Hemlock, joist, 2½x4, each	00 00@00 13
Hemlock, wall strips, 2x4, each	00 00@00 10
Ash, good, ℔ M	40 00@43 00
Ash, second quality, ℔ M	25 00@30 00
Cherry, good, ℔ M	60 00@80 00
Cherry, common, ℔ M	25 00@35 00
Oak, good, ℔ M	38 00@43 00
Oak, second quality, ℔ M	20 00@25 00
Basswood, ℔ M	22 00@25 00
Hickory, ℔ M	36 00@40 00
Maple, Canada, ℔ M	26 00@30 00
Maple, American, per M	25 00@28 00
Chestnut, ℔ M	35 00@40 00
Shingles, shaved, pine, ℔ M	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 60
" cedar, mixed	0 00@ 3 50
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ℔ M	0 00@ 1 75
Lath, spruce, "	0 00@ 2 00
Lath, pine, "	0 00@ 2 25

BUFFALO.

We quote cargo lots:—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

OSWEGO, N.Y.

Three uppers	$46 00@48 00
Pickings	36 00@38 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	12 00@15 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@38 00
1½ inch	35 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1½ inch mill run	14 00@20 00
" " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	3 75@ 3 90
XXX, 18 inch, cedar	3 75@ 3 90
Lath	@ 2 25

CHICAGO.

The *Northwestern Lumberman* says:—Values at Saginaw, Muskegon, Minneapolis and other points of production are fully maintained, with a little stronger feeling rather than otherwise prevailing. Purchasers who visit such places of supply find that the offerings are extremely limited, the general statement being that the stock to be cut has been pre-engaged. The limited number of cargoes daily offering on the market of this city is an evidence that the statement of scarcity of procurable lumber made by searchers after it is true at least of Lake Michigan ports. Dealers who, through what they considered wise motives, did not stock up earlier in the season, are now a little anxious to know where their supplies are coming from, provided a heavy fall trade should ensue. The pertinacity with which manufacturers have held on to prices throughout the season thus far must be taken as a new feature of the lumber business, which has an adequate cause, and after the season's fight is over it will be well for the trade at large to study out a means for meeting it in the future. Generally the demand regulates the supply; but this year we have witnessed the supply dictating to the demand, and laughing at opposition. Lately we see in this cargo market the pushing disposition of the supply, for no sooner did the trade

make a few slight advances in the list than the price of cargo lumber was crowded up a little, advancing on peice stuff from $10.50 and $11 to $11.50 a thousand. The manufacturers seem to have a grip on the situation, and are determined to hold it.

CARGO QUOTATIONS.

Short dimension, green	$11 00@11 25
Long dimension	11 75@15 00
Boards and strips, No. 2 stock	12 50@13 50
No. 1 stock	18 00@21 00
No. 1 log run, culls out	18 00@22 00
Standard shingles	2 60@ 2 65
"A"	2 70@ 2 95
Clear	3 20@ 3 25
Lath	2 00@ 2 25

Receipts and stock on hand of lumber and shingles, etc., for the week ending Aug. 3, as reported by the Lumberman's Exchange :—

RECEIPTS.

	Lumber.	*Shingles.*
1882	66,337,000	19,278,000
1881	54,958,000	25,225,000

FROM JANUARY 1 TO AUG. 3 INCLUSIVE.

RECEIPTS.

	Lumber.	*Shingles.*
1882	1,015,052,000	435,309,000
1881	883,683,000	393,259,000
Inc	131,369,000	42,050,000

LAKE RECEIPTS TO AUG. 3.

1882	867,047,000	402,734,000

STOCK ON HAND JULY 1.

	1882.	1881.	1880.
Lumber	443,039,546	352,391,329	347,346,419
Shingles	223,839,500	142,726,000	144,095,000
Lath	26,691,152	30,764,312	29,733,995
Pickets	1,902,187	3,170,228	795,360
Cedar posts	154,143	120,559	111,655

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

LONDON.

The *Timber Trades Journal* of July 22nd says : A year ago the deliveries from the docks were excessive, and all were surprised that they kept at such a high rate for so long ; the export to the colonies, assisted by the country demand, added to fair average demand on the spot, brought them up to figures we are not likely to see surpassed this year, unless something unexpected crops up to give them a stimulus. The present deliveries are high enough, we expect, for the dock company, who are not so anxious about their keeping up, though doubtless glad to record a great trade doing, but it is only natural they should like to see the arrivals plentiful as well.

Just now the Surrey Commercial Dock Company are pretty busy, and in Canada Dock seven large sailing ships and one steamer discharging together gave an appearance of greater activity in that quarter than has been observable for some time. The Quebec liners form a prominent feature in the docks generally at this period, and though hardly so many now as there were at this time last year, the rest of them cannot be far off, and probably the next fortnight will help to swell the tonnage considerably. Of the Colonial goods a considerable proportion, we understand, has gone overside into craft, but nearly all of the cargoes arriving from the Baltic ports have been landed.

TYNE.

The *Timber Trades Journal* of July 22nd says : The arrival of wood goods during the last fourteen days has been upon a fairly large scale, and covers almost every kind of timber. A large fleet of Baltic ships have come to hand, and are now delivering their cargoes at various parts of the river, and as there are also several cargoes of timber from Pensacola, &c., the river presents at the moment a very animated appearance. Several steamers have arrived in the interval with the usual assortment of wood goods for cargo from Gothenburg and Norway, while one steamer entirely loaded with battens is now delivering at Newcastle Quay from Norway. Several yellow pine ships are almost daily expected from Quebec, and, as these goods are very scarce in the river at present, their arrival will be hailed with welcome by the importers.

LIVERPOOL.

The *Timber Trades Journal*, of July 22nd, says :—So far as spruce deals are concerned, there is a firmer tone in the market, although this has not yet developed itself sufficiently to make quotations higher ; but there is evidently a disposition to store rather than sell at prices recently obtained, and several cargoes are being stored, amongst them being one large cargo per steamer of about 1,200 standards. The details of what has recently been done in these goods by auction will be seen below, but higher prices are anticipated for the next auction.

At the auction sale on the 14th inst., of which a short summary was telegraphed, prices were maintained at the previous rates obtained for spruce deals, as will be seen from the following details :—

	£.	s.	d.	£.	s.	d.
Spruce deals, St. John, N.B.—						
16 to 24 ft. 3×11	7	10	0	to 7	12	6
12 " 15 " 3×11	7	10	0			
9 " 11 " 3×11	7	2	6			
16 " 24 " 3×9	7	5	0			
12 " 15 " 3×9	7	5	0			
9 " 11 " 3×9	7	2	6			
16 " 27 " 3×7	7	0	0			
12 " 15 " 3×7	7	0	0			
9 " 11 " 3×7	7	0	0			
9 " 23 " 2½×7	7	10	0			
9 ft. & up. 3×12 & up.	7	7	6			
16 to 24 ft. 3×8	7	0	0			
9 " 15 " 3×8	6	17	6	to 7	0	0
9 ft. & up. 3×6	7	2	6			
Scantling	6	5	0			
Deal ends	6	0	0	to 6	7	6
Do. St. Margaret's Bay, N.S.—						
16 to 26 ft. 3×11				7	10	0
12 " 15 " 3×11	7	7	6	to 7	10	0
9 " 11 " 3×11	7	7	6	" 7	10	0
12 " 28 " 3×9				7	5	0
9 " 11 " 3×9	7	0	0	to 7	2	6
16 " 29 " 3×7				6	17	6
12 " 15 " 3×7	6	17	6	to 7	0	0
9 " 11 " 3×7	6	15	0			
9 " 29 " 2½×7	7	7	6			
9 " 25 " 3×10	7	7	6			
9 " 29 " 3×8	6	17	6			
9 " 29 " 3×6	7	2	6	" 7	5	0
9 " 28 " 3×6	7	2	6			
Scantling	6	15	0			
Deal ends	6	0	0			
11 to 20 ft. 4×12 to 16	9	0	0			
10 " 23 " 4×11	8	10	0			
9 " 25 " 4×10	8	7	6			
9 " 27 " 4×9	8	5	0			
9 " 27 " 4×8	8	12	6	to 8	15	0
9 " 27 " 4×7	7	17	6	" 8	0	0
Planed spruce boards—						
10 " 24 " 1×7 & 8	8	0	0			
10 " 25 " 1×6	7	17	6			
10 " 25 " 1×5	7	12	6			
10 " 24 " 1×4	7	2	6			
Unplaned spruce boards—						
All sizes	6	7	6			

Birch timber, St. John, N.B.—			
22 to 24 in. deep		30d	per ft.
20½ " 21½ "		25½d	"
20 "		24½d	"
19½ "	21d to	21½d	"
19 "	20½d "	20½d	"
18 " 18½ "	19d "	19½d	"
17 " 17½ "	17½d "	18d	"
16 " 16½ "	16½d "	17½d	"
15 " 15½ "	15½d "	16½d	"
14 " 14½ "	14½d "	15d	"
13 " 13½ "		14½d	"
10½ " 13 "		13½d	"
Maple 13 " 17 "		16d	"
Elm 20 "		18d	"
Ash 15 "		22d	"

GLASGOW.

The *Timber Trades Journal* of July 22 says:—Imports of wood goods to Clyde ports during the week have amounted to about 10,000 loads, and comprise three cargoes of pitch pine, and the remainder chiefly Quebec timber and deals. At Grangemouth the arrivals have been to the extent of about 3,500 loads.

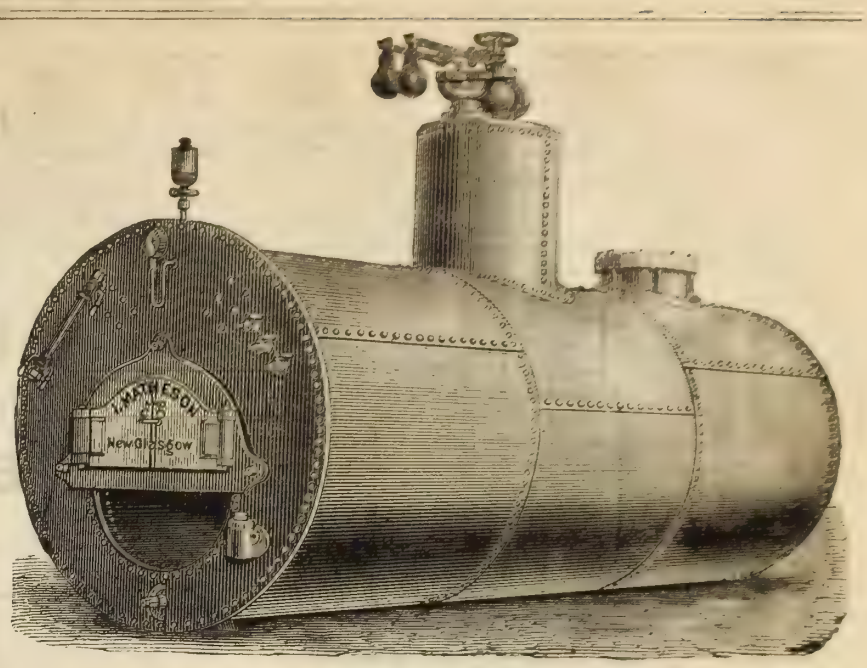
SWEDEN.

The Stockholm correspondent of the *Timber Trades Journal* says :—Shipping operations from the timber ports of Norrland are now being vigorously prosecuted on a large scale, and with favourable weather on the whole. From the extent of recent sales, and other contingent circumstances, I am inclined to believe that the present season's export will be the largest of sawn and planed wood that Sweden has yet despatched. I should not be surprised were the present season's export of these goods to reach nearly 700,000 Petersburg standards, a quantity that would have been considered fabulous twenty years ago. It is not to be wondered at that, under the pressure of this immense consumption, the very oldest firms in the trade in the north of Sweden, who ten or fifteen years ago were convinced that the forests they were then working would serve them longer than they required to look forward to, should now begin to reckon up more carefully the resources at their disposal, and to find, to their surprise, that they will soon have to enter the open market for logs, the same as many of their competitors have to do. This, I am informed, has been the case this season with a particularly prominent firm in the Lower Gulf, whose sawmill manager could not persuade the partners that they were likely to require logs from other than their own woods until the present year.

Negotiations are still being continued by prominent firms in the Gefle district, as well as by Sundswall people, for the acquisition or lease of large tracts of growing forest in their respective districts. Prices in the latter district are on the rise, and may be expected to still further increase from the competition of the many mills in the Sundswall district poorly provided with reserves of forest property. Forest fires, mentioned in my last as causing considerable loss in Medelpad and Jemtland, have now been subdued, thanks to energetic action on the part of their owners, assisted by a copious rainfall.

The Red Lake Pine Lands.

The *Northwestern Lumberman* says :—There is likely to be a political fight in Minnesota, of no small proportions, over the Washburn bill to provide for the sale of the Red lake lands. The Grand Forks *Plaindealer* is growing hot on the question, and wants congressmen elected who will defeat the bill. It says that $40,000,000 is involved in the bill, and every effort should be put forth to prevent that bonanza falling into the hands of the Minneapolis ring. The *Plaindealer* further says that there are thousands of Minnesota men in the Red river valley who are willing to pay from $10 to $16 an acre for the Red lake pine lands, while the ring back of the Washburn bill is trying to get it on the "old swindling" auction plan for $2.50 an acre. While the Grand Forks interest is trying to defeat the Washburn bill through political measures, it had better keep right on with the proposed scheme of forming a syndicate for the purpose of acquiring a large share of the pine lands in dispute. Grand Forks has a golden opportunity that should not be neglected.



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THE GREAT MICHIGAN FIRE.

A correspondent of the *Fireman's Journal*, who has lately gone over the territory devastated by the great fire in the forests of Michigan last fall, says his observations are conclusive that phenomena aside from the ordinary conditions of combustion were developed. In the first place the fire created at least two veritable storm centers which had the essential features of storms, and especially the spiral winds. The evidence are confirmatory of the belief that this storm center, after it became fully developed, consisted of a heated body of air or gas in a state of combustion, which was constantly fed by the smoke and vapor driven to the center by the whirling winds and gases generated in the combustion of the pines and other resinous woods. This body of air, or burning gas, if it may be so called, by its heat acquired an accensive force, but by the rapid forward motion of the fire was sucked forward and devoured, actually preceding the fire proper. It is evident that this body was of intense heat, possibly as great as 400° Fahr., at which point oxygen and carbon unite. That such a body of luminous vapor existed, detached from the fire, is asserted by many who saw it from a distance, and by those who were under it, but who escaped from the fact that it passed above their places.

The idea is further sustained by the fact that the fire jumped whole patches of inflammable slashings, and alighted beyond, lifting and falling in its forward motion like a balloon touching the earth. Fences in the center of broad fields burst into a blaze as if by explosion, and others nearer the fire escaped. A man in fighting the fire took off his trowsers, fearing they would catch fire and burn him up, and left them in a furrow in the middle of a field remote from any combustable material. When he went to get them he found them burned, and six quarter-dollars that were in the pocket melted together. A set of spoons were served the same way at another place.

Mrs. Lock and five childern were burned to ashes, noting but their bones remaining in the middle of the road, one hundred feet from any heavy timber. Green timber was dried and burned, and perhaps the most conclusive evidence was the apparently spontaneous appearance of fire in stumps and fences where no sparks were falling. These blazes appeared of white light and indicated a chemical union of carbon and oxygen. Another general feature is the fact that the fire appeared to move forward in parallel lines of varying width, and that in these lines everything was burned and frequently to ashes. At the edge of the track a fence would be burned square off, just as though it had been cut or sawed perpendicularly; a house would be taken and the barn left; a wagon and a fanning mill were within five feet of each other, and the wagon was burned to ashes and the fanning mill not charred. It would be impossible under ordinary circumstances, to burn a waggon without piling combustible material over it, but of this nothing but the iron was left.

Finally, the storm and fire disappeared simultaneously; that is to say the fire was dependent upon the storm, or secondary to it—that it was prevented from lingering in the track or from burning sideways. In from two to three hours the fire was practically out where it had passed, indicating that the prime cause of the rapid combustion was in the storm which had passed, and which passing, perhaps, carried in its wake a condition of atmosphere opposed to combustion. This hypothesis explains pretty much all the phenomena except the balls of fire, which exactly correspond with what is known as "ball lightening," but which is a form of electricity wholly disputed by some, but recognized by Professor Loomis.

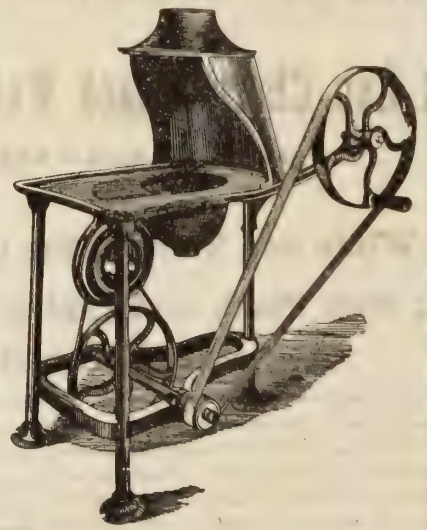
The statements of Ballentine and Kabocke are confirmatory of this ball lightning idea, and contradictory of the idea that these lights arose from the intense heat, or they themselves could not have survived it. Other statements are to the effect that this ball of fire fell on the ground and exploded, running in all directions. This is explained by some who were not present, who say that it was but the resinous cones of the pines ignited, carried by the wind, falling, scattering the burning pitch, about them; but it should be remembered that those people who saw this phenomenon are men who have lived amid forest fires all their lives and have seen all the ordinary phenomena, and are not of a class exactly visionary or imaginative. It is fair to assume the possibility of electrical phenomena incidental to this fire storm, both from the fact that it was a great commotion in the elements and because it differed from a storm only in the facts of the absence of rain and presence of fire. —*Scientific American.*

Botanic Gardens.

In an article on the approaching Forestry Congress in Montreal the *Gazette* says:—There is one branch of the subject which, we think, has never had the attention in the Dominion which is due it—we mean that of botanic gardens. Some of the colonies have institutions for the study of forestry, with a museum and botanic garden attached, which have been productive of much good. With us but little has yet been attempted in this direction, though Halifax has set a good example. Why should we not have at Montreal as a part of our beautiful park, a garden, representative of the various forest wealth of Canada? We would respectfully suggest that some of the members of the Congress take up this proposition and set it, in all its details, before the authorities and the public. A garden of that kind would not only do much for the furtherance of the study of forest botany, but would be a feature of our city, most attractive both to residents and strangers.

THE Hon. M. C. George said in Congress last April that the coast range forests of Oregon and Washington territory embrace an area of 17,000,000 acres. This, he alleged, is ten to twenty times as many acres as are in the best timbered lands of Wisconsin, Michigan or Pennsylvania. The fogs of the sea that creep up the valleys are mainly the cause of the astonishing growth of the coast range forests.

PORTABLE FORGES



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Mack's Magnetic Medicine is sold by Druggists at 50 cts, per box, or 12 for $5, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont.

Sold by all Druggists in Canada. L23

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AUCTIONEER AND COMMISSION MERCHANT

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SOLE PROPRIETORS OF THE

FAMOUS INTERNATIONAL

BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

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RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.

HOYT'S CELEBRATED LEATHER BELTING.

COTTON BELTING, for Flour Mills. &c., Superior Quality.

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Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. ☞Quotations furnished for any part of Canada. 1L21

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Machine and Illuminating Oils

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Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,

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Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills L7tf

ROBERTSON'S
LIGHTNING CANT-DOG
STEEL RING,

The Lightest, Cheapest and Most Durable Cant-Dog in the World.

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AMERICAN HEAVY
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Rubber Belting, | Rubber Packing,
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A Full and Complete Stock always on hand.
Write for Prices and Discounts.

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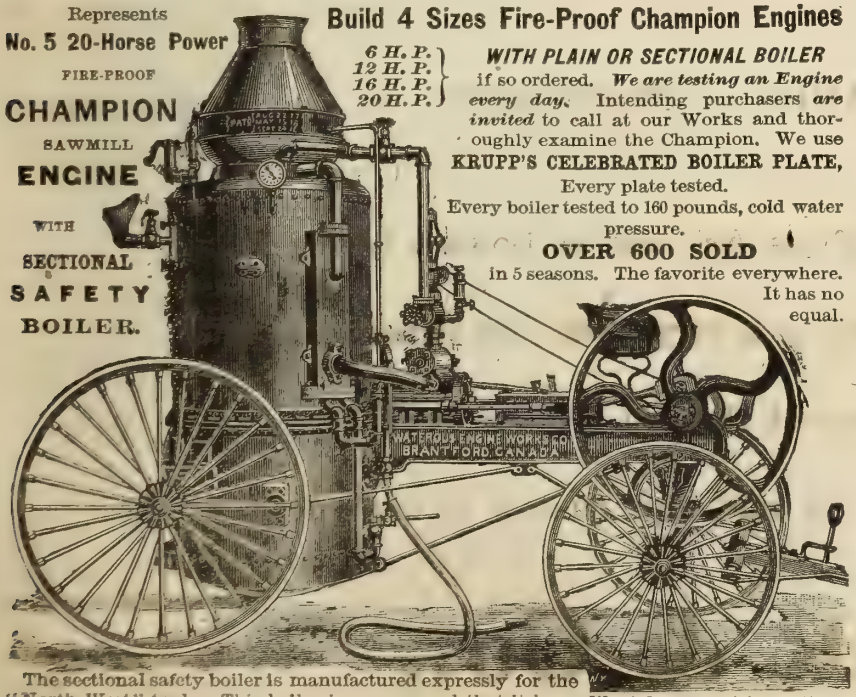
Represents
No. 5 20-Horse Power
FIRE-PROOF
CHAMPION
SAWMILL
ENGINE
WITH
SECTIONAL SAFETY BOILER.

Build 4 Sizes Fire-Proof Champion Engines

6 H. P.
12 H. P.
16 H. P.
20 H. P.

WITH PLAIN OR SECTIONAL BOILER
if so ordered. ***We are testing an Engine every day.*** Intending purchasers ***are invited*** to call at our Works and thoroughly examine the Champion. We use **KRUPP'S CELEBRATED BOILER PLATE,**
Every plate tested.
Every boiler tested to 160 pounds, cold water pressure.

OVER 600 SOLD
in 5 seasons. The favorite everywhere. It has no equal.

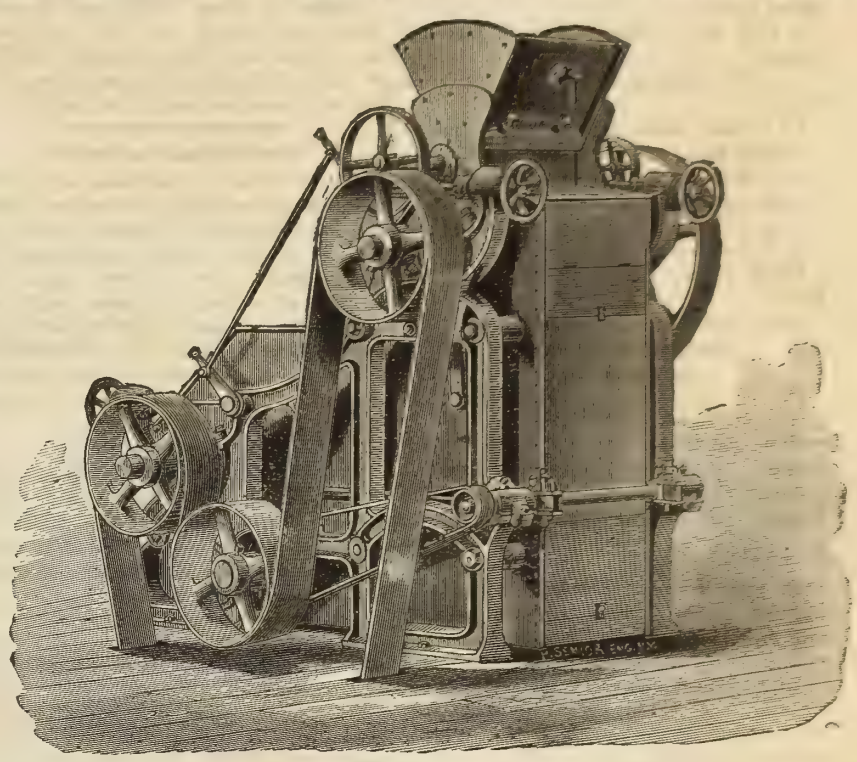


The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. ***We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies.*** Largely used by the Pacific Railway Company and all the large Colonization and Ranche Companies.

ADDRESS WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.
Send for New Circular.

THE LATEST
For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT
Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

MANUFACTURED EXCLUSIVELY BY
MILLER BROS. & MITCHELL,
Nos. 110, 112, 114 and 116 KING STREET
MONTREAL.

☞Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

1L19 Mention this Paper.

RAFTS ARRIVED.

The Quebec *Chronicle* gives the following list of rafts, &c., arrived:—

July 29—R. & G. Strickland, white pine, R. R. Dobell & Co.'s cove.

D. D. Calvin & Co., oak, pine, &c., sundry coves.

July 31—Sundry lots, staves, Union Cove.

D. C. Thomson & Co., staves, Bridgewater Cove.

O. Latour, white and red pine, Cap Rouge.

Price Bros. & Co., deals, Town Wharf.

Wm. Mackay (2), white and red pine, Hadlow Cove.

Aug. 2—D. D. Calvin & Co., (Charleson Lot), staves, Union Cove.

C. & W. Mohr, white pine, &c., St. Lawrence Docks.

C. & W. Mohr, spruce deals, St. Lawrence Docks.

Ed. Derenzy, white pine, &c., Cap Rouge.

Costello Bros., white pine, &c., Cap Rouge.

B. Caldwell & Son, white and red pine, St. Lawrence Docks.

Aug. 3—Sereney & Wilson, white and red pine, St. Lawrence Docks.

David Moore, white and red pine, Cap Rouge.

Costello Bros., spars, Cap Rouge.

Red Lake Pine.

The *Northwestern Lumberman* says:—The pine forest region around Red Lake, northwestern Minnesota, begins to attract much attention. Aside from the political capital that will be made out of it in connection with the Washburn bill for bringing it into market, there are natural reasons why it will be difficult for T. B. Walker and his ring, or any other Minneapolis interest, to wholly monopolize it. The Red Lake river, which connects Red lake with the Red river of the north, is pronounced an excellent log driving steam, and nature seems to have designed that the larger share of the forest products of the region should go westward to supply the vast prairie country of northern Dakota.

Young's Point, Ont.

SHINGLE MILL.—The shingle mill which is run by W. J. Kearns is doing an immense business, and owing to the great demand for shingles Mr. Chalmers intends to sell the present machine, which only cuts 11,000 shingles per day, and purchase a new one to cut from 16,000 to 20,000 per day, which will pay all concerned, and the supply will be kept up to the demand.

SAW LOG DRIVES.—Mr. Alex. Wynn, in the employ of Mr. Geo. Chalmers, passed through here Monday, July 31, with a drive of 25,000 saw logs, bound for the Lakefield saw mills, to get cut into merchant lumber for shipping to the other side. Mr. Hilliard has also a large drive consisting of about 40,000 pieces, bound for Blythe mills, which were run over here on August 2nd; Mr. Foster, foreman. Mr. Irwin, of Nassau Mills, has also a large drive of saw logs in the rear, and more drives to follow.

Turtle Mountains Timber.

The *Northwestern Lumberman* says:—Turtle mountains lie across the line between Dakota and the Dominion of Canada. On the south there is a belt of excellent agricultural land, mostly prairie. On the lower slopes of the mountains is a fringe of timber, ranging in a zig-zag course from the prairie land to the mountain tops. The timber observed by a tourist was oak, ash, elm, birch and poplar, the trees being sturdy, and the forest free of underbrush. Some pine is said to abound.

THE Glasgow correspondent of the *Timber Trades Journal*, of July 22nd, says the imports at Glasgow have been chiefly Quebec deals per steam liners, large quantities being at present on the wharf at Yorkhill in course of removal to the yards for being stacked.

THE Rev. Charles E. Piper, formerly of Pittfield, N. H., but now of Wakefield, R. I., writes:—"I have used Baxter's Mandrake Bitters in my family for over two years, and as a result have not called a physician in the whole time. My wife had been an invalid for two years, but these bitters have cured her."

ADAM McKAY,

MANUFACTURER OF

Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19

144 Upper Water Street, HALIFAX, N.S.

PAIN KILLER
MEDICINE CHEST
A PURELY VEGETABLE MEDICINE
For INTERNAL and EXTERNAL use.
THE OLDEST BEST & MOST WIDELY KNOWN FAMILY MEDICINE

Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

COBOURG, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &c., J. E. KENNEDY

Beware of Counterfeits and Imitations.

Price 20c., 25c., and 50c. per bottle.

LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices.

All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.

BOOK-BINDING of every Description got up in a very Neat and Superior manner.

Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

TOKER & Co.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President. JAMES T. BARNARD, Hamilton, Secretary-Treasurer. SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERTSON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS
TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulleting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x1/4, 8x3/16, 8x1/8 } 3/4 in. hole. 10x1/4, 10x3/16, 10x1/8 } 3/4 in. hole. 12x1/4, 12x3/16, 12x1/8, 12x3/16, 12x1/8 } Holes, 5/8, 7/8 and 1 inch.

Probably more wheels 12x1/8, 12x1/4 and 12x3/16 are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2." It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

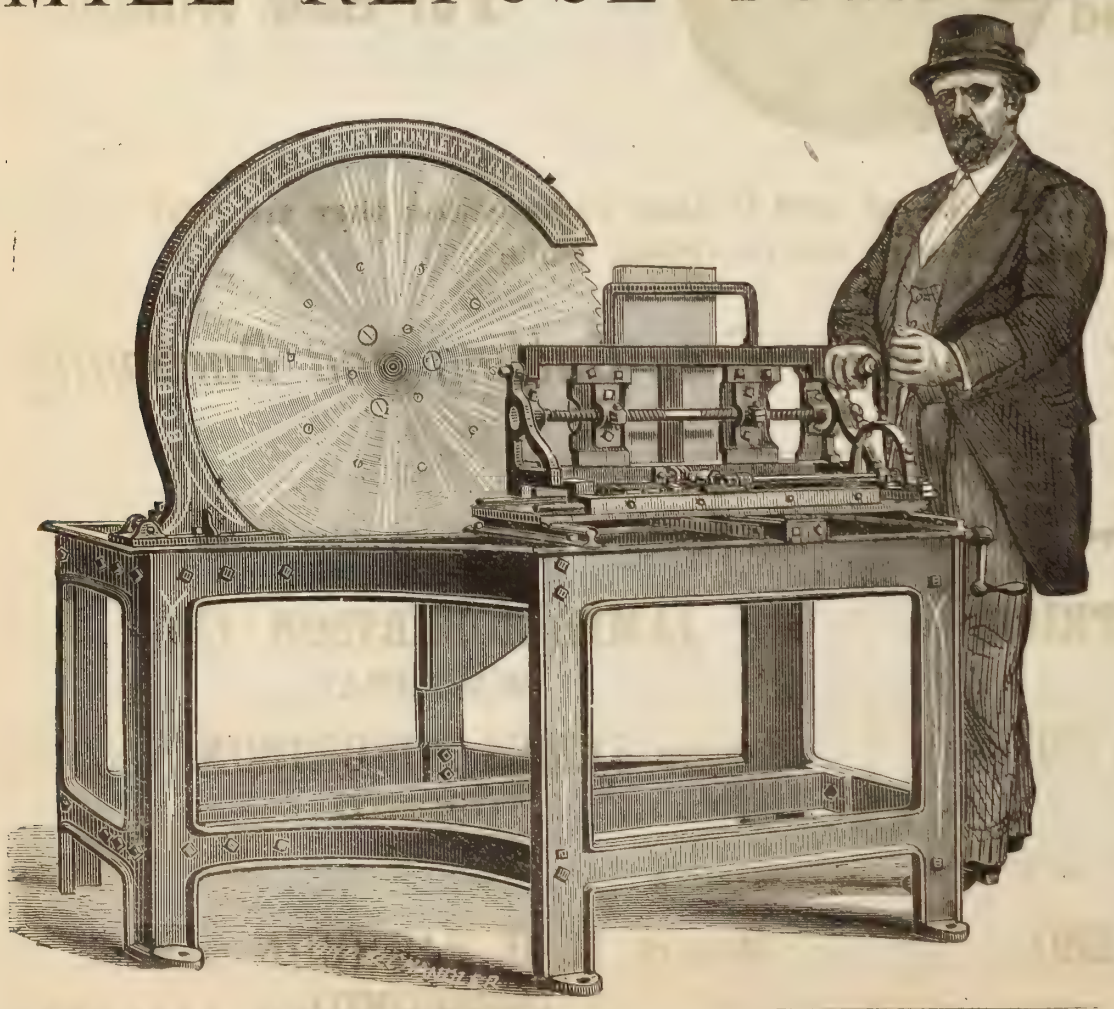
CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1y11

Tanite Co. Stroudsburg, Monroe Co. Pennsylvania.

CANADIAN TRADE SPECIALLY SOLICITED.

MILL REFUSE TURNED INTO MONEY



BY THE USE OF

Brown's Patent Shaft and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c., from spalts, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion; have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out: sixteen 16 ft. boards, or eighteen 12 ft. boards, have been cut by it in one minute. It is the established feed for steam mills; I make a specialty of its manufacture; will guarantee satisfaction.

Our Patent Twin or Span Circular,

with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab logs 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Trenton, and Georgian Bay Lumber Co's Mill, Waubaushene and Port Severn. ☞ I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise; I keep it constantly on hand, ready for immediate shipment.

Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.

WILLIAM HAMILTON, Peterborough Foundry and Machine Works, PETERBOROUGH, Ont.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS' AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

VOL. 2. PETERBOROUGH, ONT., SEPTEMBER 1, 1882. NO. 17.

A GOOD many trades, concerning the workings of which very little is known, make use of wood as their principal raw material. Such a trade is the wholesale toy trade. A wholesale toy manufacturer has informed the *Timber Trades Journal* that at his works never less than fifty tons of wood are cut up, solely for the purpose of toymaking, every week of the year.

THE *Timber Trades Journal* says :—The London import list is again swelling to something like large dimensions, and the arrival of sixty-four timber-laden vessels this week, of which thirty-seven were steamers, is likely to be regarded as quite enough for the time being, and many interested in the trade will think it would be none the worse for this market if some of them had gone elsewhere.

EVIDENTLY inserted-tooth saws are not very popular in England. Speaking of saw teeth, the *Timber Trades Journal*, of London, says :—Those most generally in use are known in this country as the peg, gullet, fleam, handsaw, mill-saw, and the M tooth. False teeth are used to a considerable extent in America, but owing to the undue waste of timber, and the excessive power required to drive them, they are entirely unsuited to English practice.

THE *Monetary Times* says there is a combination among tan-bark dealers in Maine and the Eastern Townships, if the Boston *Advertiser* is correct. That journal says that the Canadian bark dealers are masters of the situation. Some bark has just been sold as high as $15 per cord, a great advance. In the spring, and even in June, it was at $10 to $10.50. A month ago the price was $13 per cord. Holders of bark hold strong views as to the future. They claim that during the last sixteen months tanners have used 50,000 cords of bark more than there will be for them to consume in the next sixteen months.

THE Trenton Council have granted permission to Gilmour & Co. to lay a railway track along Water and Ontario streets, which is now being done. The intention is to pile lumber on their property along the river's edge, toward the railway, with the ultimate object of making connection with the Grand Trunk. The company have nearly finished in their yard an inclined railway track by means of which they can run their motors on either the ground or elevated tracks. The mill proper is now the greatest hive of industry imaginable. Over 500 hands, large and small, are as busy as they can be handling the lumber, and making, of the refuse, lath, headings, pickets and shingles. These twin circulars slab and prepare for the gangs on an average three logs a minute. The mill cut one day in the 10 hours 432,000 feet, and has cut on an average 250,000 feet a day lately.

IMPORTANT INVENTION.

The future timber supply for the mills of the Saginaw River has been a problem which has long been a subject of serious consideration by our citizens generally, but more especially by those who have vast pecuniary interests involved. If the statistics are at all reliable, and the predictions of many lumbermen themselves are worthy of serious consideration, at the present rate of consumption it will not take much over a dozen years to virtually exhaust the white pine of the country tributary to the Saginaw river, and the query has naturally arisen : What is to become of the vast pecuniary interests involved in the gigantic lumber manufactories which line either side of the river from its mouth twenty miles inland. Will these vast manufactories be removed or will man's inventive genius, or the necessities of the situation develop some scheme whereby the raw material shall be forthcoming to satisfy the insatiable demand of these monster institutions? That there is plenty of timber available which it is possible to to utilize in order to keep the vast machinery in motion until the present generation shall have passed off the stage of activity is undoubtedly true, but how shall it be safely and cheaply transported is the query which has puzzled those most nearly interested. We have heretofore alluded to the Georgian Bay country as a source of log supply for the Saginaw river, providing the difficulties involved in the transportation problem could be overcome. If the co-operation of the weather clerk could certainly and positively be secured, the problem would be solved at once, and the immense log rafts which, during the fine weather of midsummer, pass through the lakes, would continually line the route between the two points. But herein lies the difficulty. The storms which are liable to be encountered on the route with the present ordinary appliances for securing logs in the raft have been heretofore considered an insurmountable bar to the successful prosecution of the work involved. Several schemes have been devised for the purpose of overcoming the difficulty. Log boats have been built, a few of which are at present in use, a device has been put to practical test in loading these boats cheaply and expeditiously, and it has been claimed by those interested that these contrivances would solve the whole problem of log transportation. But utility and cheapness are not combined in the plan. The boats, in order to be secure, would have to be very strongly built, at a heavy outlay, and the handling would be no inconsiderable expense, and this brings us to the point at which we are aiming.

We have before us a design for a patent boom stick which, it is claimed, will be the open sesame out of all the difficulty embraced in log transportation. It is a very simple device, and like all other articles of great utility, when they are first discovered the wonder is that it has never been thought of before. The inventors are Messrs. William Goldie, of Goldie shingle machine fame, and Frank Durell, of this city. A patent has been applied for and the device sufficiently protected to admit of its public explanation. It consists of three sticks instead of one, as at present used, and really constitutes a floating fence built around the raft. The centre stick or float is of white pine and two feet in diameter. Attached to it, with an interstice of about six inches space between them and the float log, are two other sticks about one foot in diameter. One of these, the under log, is of elm or other timber of about the same specific gravity as water, and is weighted sufficiently with iron attached to the connecting rods to serve as a "sinker." The other or upper log is of white pine peeled, and acts as a rider. The three logs are firmly bolted together, with one inch bolts running from top to bottom, through the three logs ; and when completed and the "patent boom stick" is in the water, it will stand about three feet below the water surface and two feet above, preserving this position of course by the laws of gravitation, and acting simply as a breakwater for the safety of logs confined within the limits of the raft.

It is well understood that a wave of water is simply a form, and the water itself does not move along with the form as it passes along the surface, as one would be inclined to suppose from a superficial observation. In forming a wave the water simply moves up and down and not longitudinally. Break this form and the water beyond the break, of course, is stilled. The old form of boom stick fails to accomplish this result sufficiently to secure the logs which they enclose, and consequently when the force of the wave strikes them the logs occasionally pass over or under them, as the case may be, according to the relative position they occupy on the rising or falling wave. The new boom stick, it is claimed by the inventors, Messrs. Goldie and Durell, will obviate this great difficulty and accomplish the desired result of securing comparative, if not absolute, safety to the raft. The device has been exhibited and explained to a large number of the practical mill men on the river, and they unanimously pronounce emphatically in its favor. If the sanguine anticipations of the inventor are fully realized, the new "patent boom stick" will be an important contrivance, as it will not only obviate the necessity of log boats or any other contrivance of that character for the safe transportation of logs, but actually solve the great problem which has so long been a source of anxiety to the Saginaw river mill men, by unfolding to them the channel through which they are to secure the stock with which to supply their immense lumber manufactories in the future ; and its bearing on the future of Bay City and the other prosperous towns on the river, considered in connection with the continued cheap manufacture of salt, is incalculable, if, when it is put to the practical test, it should accomplish all that is claimed for it.—*Lumberman's Gazette.*

PORTABLE HOUSES.

In many of our colonies and in foreign countries as well as at home there appears to be a growing demand for portable houses composed mainly of wood and iron. In an article in a recent issue of the *Colonies and India*, we are told that portability, simplicity of construction, and ease of erection are the three great essentials, and these exist more in houses whose outer covering is composed of galvanized corrugated iron than in any others. It might be thought that the most economical way of erecting these houses would be to buy the iron and wood on the spot and hire skilled artisans to do the work. But practically this is found not to be so, owing to the difficulty of procuring skilled labour and the high price it commands when secured. The consequence is that anyone requiring any sort of portable building, or indeed any structure mainly composed of iron and wood, will effect a great economy both in money and convenience (and, in many cases, in time) by getting some manufacturer of these houses in the mother country to send out all the materials required ready for erection, which can then be readily done without the employment of any skilled labor at all. It is on account of their having given especial attention to these points that we would wish to draw our readers' attention to the iron houses manufactured and exported by Messrs. Edward Spencer & Co., of 87, Fenchurch street, London.

We may here state that the firm above mentioned has been established more than 100 years. It was originally founded for the manufacture of Dr. Arnott's hydrostatic beds, and from this has sprung a general business of wood-workers, the special branches being a case-making department, where large contracts are carried out for Her Majesty's government ; a carpenters' department, where every description of woodwork from the plainest deal to the most elaborate hardwood is made ; and a saw mill, chiefly employed on their own work, but where sawing, planing, &c., are also done for the trade. Some time since Messrs. E. Spencer & Co. determined to commence the manufacture of iron and wood buildings both for the home markets and for exportation, their works being conveniently situated on the Regent's Canal at Bow. The firm manufacture every description of portable dwellings, churches, warehouses, stores, &c., while they supply "roofing, from a hen house to a railway station."—*Timber Trades Journal.*

THE Trenton *Advocate* says it is the intention of Mr. Rathbun to fit up the mill at Baker's Island next spring, on account of the construction of the Murray Canal.

FORESTRY CONGRESS.

The annual meeting of the American Forestry Association, which was held in Montreal on August 21st, 22nd, and 23rd, passed off very successfully. There was a large attendance of those interested in forestry both from the States and the Dominion, among the representative men of high standing being many of our leading lumbermen.

The following is a partial list of the delegates from a distance :—

B—Bureau, Senator, St. Remi ; Butler, A. W., Brockville, Ind. ; Beall, T. Lindsay ; Broster, C., Three Rivers ; Beadle, D. W., Barnes, Wm. S., Baskerville, P., St. Catharines ; Bergeron, J. G. H., Beauharnois ; Brigham, Dr., Phillipsburg ; Bell, C. E., Representing Crown Lands Department, Quebec ; Beaufort, E. L., Cape Vincent, N. Y. ; Brisebois, E. C., Minnedosa, Ma.

C—Chandler, —, Chicago ; Chaffers, Hon. W. H., St. Cesaire ; Chapais, J. C., Varennes ; Crebassa, J. G., Sorel ; Chapman, C., Toronto ; Cowper, G. B., Toronto ; Charlton, E. J., Quebec ; Charleson, J. B., Quebec ; Cuthbert, E. O., Berthier ; Chester, F.W., Quebec ; Chandler, G. H., St. John, N.B.

D—Dean, Harmon, Shelby Co., O. ; Denton, J. M., London, Ont. ; Dempsey, P. E., Trenton, Ont. ; Dunn, L. H., Quebec ; Dall, Caroline H., Washington, D.C. ; Dwyer, G. E., Suttonville ; Dwyer, E. A., Sutton ; Dougall, J., Windsor ; Dawes, T. H., Lachine ; Des rivieres, F. G., Desrivieres ; Dougall, John, N. Y. ; Du Vernet, F. H., Toronto.

E—Emerson, N.P., Sutton Junction ; Emery, Dr. J. G., Port Burwell ; Emery, Vernon H., Hamilton.

F—Fernow, B. E., Statington, Pa. ; Fyles, Rev. T. W., Cowansville ; Field, J. G. Stanstead ; Fulton, Rev. James, Lachine.

G—Guilbault, E. M. P., Joliette ; Gillies, Jas., Carleton Place ; Gillies, John, Braeside ; Gibbs, Hon. T. N., Ottawa ; Gleed, C. S., Topeka, Kansas.

H—Hough, Professor F. B., Washington ; Hicks, J. S., Roslyn ; Hope, James, Toronto ; Howard, J. W., Chambly ; Hyatt, Jas., Stantonville, N. Y.

J—Joly, Hon. H. G., Quebec ; Jones, W. J. Bowmanville ; Jouette, S. N., New York.

K—Kinsey, Chas. E., Cincinnati, O. ; Kay, Andrew, Granby, P.Q. ; Keefer, T. C., Ottawa ; Kerr, Thomas, Toronto ; Kerr, Walter, Kemptville, Ont. ; King, Rev. E. A. W., Levis, P.Q.

L—Little, L. G., New York ; Little, J., Cote St. Antoine ; Logue, C., Maniwaukee ; Lynch, Hon. W. W., Quebec.

M—Mohr, Prof. Chas., Mobile, Ala. ; Martin, J. R., Cayuga ; Malhiot, Hon. H. G., Three Rivers ; Manning, J. W., Manning, H. G., Reading, Mass. ; Mills, W. H., Hamilton ; Miles, H. R., L.L. D., Quebec ; Moffatt, J. R. G., London, Eng. ; Mills, W. B., Beaufort, N. B. ; Martin, R., Martin, E., Martin, W. R., Hamilton ; Mitchell, C. W., Ottawa ; Massue, L. H., Varennes ; Mills, Jas., M.A., President Agricultural College, Guelph ; Morris D., St. Therese ; McConville, P. W., Joliette.

N—Norman, J. B., Three Rivers ; Nagle, R., Ottawa ; Norris, John.

P—Painchaud, Dr. C. F., Varennes ; Pardre, Avern, Toronto ; Peffer, G. F., Pewanee, Wis. ; Perrault, J. H. Varrenes ; Pell, D., Pembroke.

Q—Quinn, Stephen J., St. Hyacinthe.

R—Russell, A. J., Russell, J. Haig, Ottawa ; Renaud, Eugene, Montmagny ; Ritchie, Wm., Three Rivers ; Russell, A. G., Ottawa ; Rodriquez, J., Jacksonville ; Ross, W. G., St. Nicholas ; Robitaille, L. A., Quebec ; Rully, J., Sherbrooke.

S—Saunders, W., London ; Studer, J. H., Columbus, O. ; Stetson, John, Toronto ; Stephen, John, Chicago.

T—Tache, E. E., Quebec ; Thistle, W. N., Ottawa ; Tracy, W. W., Detroit, Mich.

U—Ulrich, Alfred, Dresden, Saxony.

W—Warder, Dr. J. A., North Bend, O. ; Wilson, H. W., Boston ; Whiteside, E., Cambridge ; Winnett, W. H., London, Ont. ; Westover, D., Frelighsburg.

Y—Young, W. C., Ottawa.

The Congress assembled on Monday, August 21, at 2 o'clock, the number present exceeding a hundred.

Prof. HOUGH nominated, in the absence of the President, the Hon. H. G. Joly, one of the Vice-Presidents, as President of the Congress. The nomination was enthusiastically ratified. Mr. Joly took the chair.

Prof. HOUGH was elected Secretary, and Charles Moore, Ala., as temporary Treasurer.

The PRESIDENT briefly explained the objects of the meeting, and announced the order of proceedings by sections.

Prof. HOUGH announced that the officers of the sections, as appointed at the Cincinnati meeting, would continue in office until the election of new officers. He moved the appointment of a committee consisting of Charles Moore, Bernard Fourneaux and Wm. Saunders to take into consideration the relations between this Congress and the American Forestry Association, which had previously appointed a similar committee consisting of Messrs. E. Moody, New York ; D. W. Beadle, Ont., and N. J. Colman, Missouri.

DR. J. A. WARDER, first vice-president of the Association, said the American Association had come here prepared to co-oporate with the Congress, and to submit to whatever the committee should recommend to-morrow. The Association had done a great deal of good during the last seven years, but they were even prepared to abandon their organization, if necessary, in the interests of American forestry.

MR. C. E. BELL, Crown Timber Agent for the Province of Quebec, offered for the inspection of the Congress, a box containing forty speciments of Canadian woods. They were excellent specimens, some of them polished and and were greatly admired.

The Congress then adjourned and met immediately afterward in sections.

SECTION A.

This section assembled under the presidency of Prof. Franklin B. Hough of Washington, W. Little, of Montreal, being secretary.

FOREST FIRES.

The first paper by Mr. JOSEPH S. FAY, Wood's Hall, Mass., made a single brief suggestion—that new plantations should be made in blocks of 10, 20, 40 or even 100 acres, divided from each other by the least 100 (even 300) feet.

HARDWOOD DISTRIBUTION.

Prof. Mohr, of Mobile, Alabama, then read a very elaborate paper on "The Distribution of Hardwood Trees in the Gulf Region of the Southern States," giving very full details as to the various species.

PLANTING BY RAILWAYS.

The third paper read was by Dr. Franklin B. Hough, Chief of the Forestry Department of Agriculture, Washington, on "Tree Planting by Railroad Companies." He dwelt upon the immense consumption of timber by the railways, especially for ties, giving statistics as to the numbers required, their duration, the necessary ages of the trees, their preservation, etc. He urged the railway companies themselves to plant, showing that it took 25 acres of land on an average to supply a mile of road. He also dwelt upon the need of shelter belts, to check snow drifts, and related what the Northern Pacific and other companies were doing in this respect.

TREE PRUNING.

Mr. N. H. EGLESTON, Williamstown, Mass., read a paper on the "Rational Method of Tree Pruning." After condemning the thoughtless lopping of trees, he said that by a rational method a forest will yield much more than when left to itself. This was known in Germany 250 years ago, and pruning was renewed in this century, and is now practised on the continent. Des Cars' treatise has been translated into English at Harvard. The essential thing is to cut off a branch as close as possible to the trunk, no matter how large the wound. The descending sap that makes the new wood cannot do it if a stump projects from its line of descent. Rational methods were practised in Europe with great benefit.

THE RUSSIAN MULBERRY.

Mr. D. C. BURSON, of Topeka, Kansas, sent a short paper on the Russian Mulberry, which he said was coming into great use on the western prairies as a tree to bring returns to the present generation, It was a quick grower, with handsome and durable timber.

THE LARCH.

Mr. DAVID NICOL, of Cataraqui, Ontario, contributed a paper on the advantages of the *Larix Europea*, or European larch, its quick growth, adaptability, propagation and culture. He discussed these very fully. The larch, he said, was adapted for lands otherwise valueless.

VILLAGE COPPICES.

The next paper read was "The Coppice for the Village and Town," by Mr. M. C. Read, of Hudson, Ohio. The article advocated the planting of coppices in odd spots in villages, towns or farms.

STREET TREES.

J. BEAUFORT HURLBERT, LL.D., of Ottawa, in a paper on the subject of forest trees most suitable for streets, lawns and groves, which he gave as suggestive only, presented a list of some thirty trees that he considered most suitable for ornamental purposes. Of the seventy to seventy-five forest trees, and the thirty to forty shrubs, of Canadian growth, he would give the preference, for streets and lawns, to the maple, elm, basswood, beech, birch, oak, butternut, walnut and ash.

FOREST PRESERVATION.

Mr. JOHN DOUGALL, editor of the New York *Witness*, read a paper on "The Preservation of Forests from Wanton Destruction ; and on Tree Planting." This was one of the most important contributions of the meeting. He described the evil effects that had followed from the too extensive denudation of the forests of this continent, and described how this evil was at length recognized. He advocated a system of forestry laws similar to those of France, Germany, Norway, and other countries in Europe. These should include a law to prevent the kindling of fires in the woods, a forest police, regulations for the gradual thinning out of the largest trees, giving the younger ones time to grow ; a general system of tree planting by large corporations, etc. Every farm, he held, should have a belt of timber planted along its windward side 50 feet wide at least ; swamps not covered with trees should be planted, he thought, with white and red cedar and tamarac ; rocky ground also might be profitably utilized. Forest commissioners, he held, should be appointed just as fish commissioners are now. As to Canada, he urged the need of tree planting in the valley of the St. Lawrence about Montreal, and on the Northwestern prairies. The other Provinces were better supplied, and the system of selling timber limits to lumbermen was conservative of the forests, but there was need for greater precaution against fire and waste. A capable commissioner of woods and forests for the Dominion would therefore prove a very valuable functionary if he were not only an expert, but an enthusiast in Forestry, otherwise his salary would only be an additional and useless burden.

MR. THISTLE, Pembroke, suggested that the forest rangers, whose work ceases in the spring, should hereafter be employed during the summer in an attempt to preserve the woods from fires.

MR. E. B. COWPER, Crown Lands Department, Toronto, did not think the time had come when the planting of forests was a practicable question for Ontario and Quebec. Clearing must go on.

MR. LITTLE said too much, perhaps, had been made of planting as compared with the preservation of forests, which was of infinitely more importance. He has seen splendid pine destroyed for the sake of clearing land, which would only grow fifteen bushels of corn to the acre. He scarcely thought that was right. It was like flying in the face of Providence.

Some further discussion took place on the necessity of preserving forests from fire, and a difference of opinion was shown as to whether there was more necessity of protecting our timber supply or of planting new forests.

The meeting adjourned about six o'clock.

FOREST FIRES.

Before adjourning, however, it was resolved that the report of the committee on forest fires be submitted to the general sessions.

OTHER PAPERS.

The following papers were also submitted to this section :—

The Destruction of Trees and Shrubs at the Ontario Experimental Farm. Prof. W. Brown, Guelph, Ont.

A few Thoughts on the Necessity for a Certain Portion of each Farm being left in Forest. J. Beaufort Hurlbert, L.L.D., Ottawa, Ont.

Forest Economy of Canada. Stewart Shayne, Ottawa, Ont.

Experimental Plantation of the Eucalyptus near Rome. Franklin B. Hough, Ph. D., Lowville, N.Y.

Conditions of Forest Growth. Bernhard E. Fernow, Shaweegan, Pa.

Lessons to be Learned from the Forests of Western Asia. Prof. M. S. Osborn, Oxford, O.

Borers in Forest Trees. Rev. T. W. Fyles, Cowansville, Que.

SECTION B.

This section was organized under the presidency of that enthusiastic forester, Dr. John A. Warder, North Bend, O., Chairman of the section. The Hon. Spring Rice was elected Secretary of the section.

TREE PLANTING FOR RAILWAYS.

As a well deserved compliment to the chairman, the first paper read was his contribution on "Tree Planting for Railroads." He pointed out that forest plantations being a long deferred investment, had not much attraction for a poor man, but might well be undertaken by companies, and especially by railways. He gave a detailed account of the success of some recent operations in prairie tree planting. He dwelt specially on the merits of the *catalpa speciosa* for ties and similar purposes.

THE CATALPA IN CANADA.

Mr. ROBERT BURNET, of Pictou, N.S., contributed some "remarks on the Canadian cultivation of the *catalpa speciosa*. As a test whether this very useful tree would grow north of parallel 42, in the spring of 1880, 100 plants from Illinois were set near Pictou (45½ north latitude), on a sharp, gravelly soil with a south exposure. They were protected from sun and frost, and this spring were distributed. All the reports of their progress are very good. There is every reason to hope that the complete naturalization of the catalpa, as suggested by Dr. Warder, of the Bend, Ohio, will be accomplished.

RAPID PLANTING.

MR. ROBERT DOUGLAS'S (Waukegan, Ill.,) paper on the three motion system of planting trees was read by the chairman. First the ground should be carefully prepared, say as for corn, it is then rolled and marked into spaces four feet apart, and the young plants, which are generally done up in parcels of fifty, are dibbled in. Three men as a rule are engaged, two plant and one carries the slips or young trees. A hole is made, the plant inserted, the spade withdrawn, and the digger, planting one foot close to the young tree, forces it into position, and passes on to the next space. This method is considered better than running furrows with a plough. The plants used were usually yearlings. By this method as many as 4,500 trees could be planted in one day.

PRAIRIE PLANTATIONS.

MR. H. W. PENNEL, of Russell, Kansas, sent a communication dwelling on the want of protection of those open regions from the winds which have a free sweep of hundreds of miles. The only way for breaking up those winds was by planting trees. In his own experience, at least half of his 6,000 black walnuts are in fruit this season ; 3,500 ash-leaved maples transplanted this spring, are making fine growth in spite of the severe drought. The author seemed to find the ravages of insects the greatest drawback.

OTHER CONTRIBUTIONS.

The following papers were also contributed to this section :—

Oaks of Hardin County, Ohio. W. F. English, Mount Victory.

Timber Trees of the Black Hills. Robert Douglas, Waukeegan, Ill.

The Coniferous Trees of the United States and Canada. Dr. George Vosey, Botanist of the Department of Agriculture, Washington, D. C.

Black Locust Growths. Dr. John A. Warden, North Bend, O.

Experiments in Tree Planting in Cape Cod. Joseph S. Fay, Wood's Hall, Mass.

The Ash. Arthur Bryant, Princetown, Ill.

Larchwere. A plantation on drifting sands. Dr. John A. Warden, North Bend, O.

Extensive planting by shelter Belts. H. M. Thompson, Preston Lake, Dakota.

The classification of Oaks. Dr. John A. Warden, North Bend, O.

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First Prize, Industrial Exhibition..... .....Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

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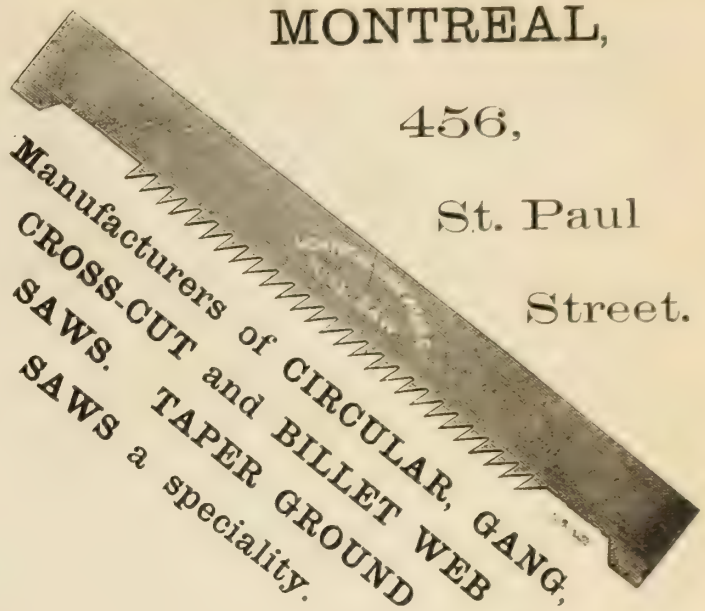

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A Western greeting. James A. Allan, Omaha, Neb.

Forest Tree plantation. B. F. Peck.

Trees, tree planting, etc. J. A. Matthews, Little Metas.

Timber culture a national necessity. D. C. Scofield, Clynn, Ill.

Rural Improvements. B. G. Northrop, Clinton, Conn.

SECTION C.

This section was under the presidency of Prof. B. Saunders, of London, Ont., the secretary being the Rev. T. W. Fyles, of Montreal.

SCIENTIFIC PRUNING.

Mr. JOHN S. HICKS, of Roslyn, N.S., communicated a paper on the "Commercial Value of Pruning." If the lower branch of young trees are not cut off, then loose or black knots will appear on the timber. Often a branch will rot and the rottenness goes to the heart of the tree. Knots can be kept sound by the branches being cut off while alive and quickly overgrown. One hickory tree that was not worth splitting for firewood might have been worth $30 or $50 if a few hours had been spent in pruning. Hickory, oak and chestnut will show the result of decayed branches. Clear pine has nearly doubled in value in the past ten years, and is still increasing, while common or knotty pine has only risen a few dollars. We will not long have the old growth to draw from, and when the trees have to be planted the neglect of pruning will be severely felt. The increase in value of a wood free from decaying branches will be more than the expense of pruning.

PIONEERS' APOLOGY.

The Hon. J. W. CALDWELL, of Cincinnati, Ohio, President of the Cincinnati Pioneer Association, wrote affirming that none had done more for the advance of the country than the two first generations of pioneers, and asking gentle treatment for them. The pioneers had to clear the ground, and though they lost the forest they gained sustenance for increasing millions of population. There was no market for their lumber, so it was burned; those millions have now made a market. As to what is now to be done—each person must plant two trees for one that he fells. The writer is the first American born and oldest survivor of the first Irish immigrant family that settled northwest of the Ohio River, and his father kept one-sixth part of his 300 acres as primeval forest. As to legislation—the road tax might be remitted to farmers who plant their road sides with trees, or a portion remitted according as he plants trees on his farm. He was sorry he could not be present to give his vote in favor of tree culture.

ARBORICULTURE.

The paper by Mr. W. ROBB, of Montreal, on "The True and False in Arboriculture," dealt, like several others, with the scientific system of forest tree pruning, European countries being cited as examples.

There followed a brief but interesting discussion on the subject.

FOREST DENUDATION.

Mr. G. L. MARLER, Montreal, read his paper entitled "Some Notes and Remarks on the Denudation of our Forests." He said that of the two great forest belts in Quebec, that to the south of the St. Lawrence had been almost denuded, and the northern would rapidly follow. The Government's gross returns from forests last year was $24,802,064, a fourth of the whole Dominion exports, and an increase of $2,000,000 over 1871. In 1871 the amount of timber cut, as reported to the Government, was—white pine—24,236,821 feet; red pine, 1,954,371; oak, 3,302,043; tamarack, 5,695,963; birch, 1,939,357; elm, 1,832,624; walnut, 117,589; butternut, 102,981; hickory, 197,827; other kinds, 26,290,-264; pine logs, 12,416,408; other logs, 9,314,557; masts, 121,685 feet; staves, 64,706 m.; lathwood, 25,706 cords; tan bark, 162,521 cords; firewood, 8,713,083. This makes an aggregate of 22,271,-384 trees. Putting 50 trees to the acre, this means 445,428 acres, equal to one township, denuded in one year. The ten years since then will have denuded about 3,240 square miles, or 30 townships. This, without counting the home consumption, which is greater than the exports. The Quebec Chamber this year passed an act giving $12 to anyone planting and keeping one acre in trees, and an act forbidding the clearing of land by fire between July 1 and September 1. Government, when putting revenue from forests down as income, has been killing the goose that lays the golden eggs. Everyone can help in replacing the trees that are being cut down. From 100 square feet sown with ash you can plant out 100 acres of ash trees and have a return in three years. Emigrants to Manitoba should take boxes of tree seeds with them; a plantation would break the winds as well as supply his much needed timber.

THE EASTERN TOWNSHIPS.

The Rev. W. FYLES read a paper of "How the forest of the Eastern Townships was broken up." The hilly district between the Seignories and Lake Memphremagog was one of vast forest, broken here and there by lakes and beaver meadows. The elms first disappeared, as the early settlers found them best for pot and pearl ash, the pines followed, only the best being used and the remainder being destroyed. White ash, brown ash, and basswood were utilized for fences. The sugar maples were often tapped so violently as to make them an easy prey to insects. Splendid bass was split into sap troughs. When the Waterloo Railway was opened the hemlocks began to be stripped of their bark, and left to rot. The winds, too, wrought havoc on the forests at the edges of the clearings, and fire has damaged them ten times more. Then there were the insects which attacked the trees, and of these he gave a lively account. He concluded by asking editors and teachers to advocate greater foresight in regard to our forests, and farmers and others to preserve the trees.

OTHER PAPERS.

The following contributions were also submitted to this section:—

Living Fence Posts. Wm. H. Ragan.

Roadside Tree Planting. W. H. Hale, Sherbrooke, P.Q.

Letter on Forestry. Dr. Ailly, Malvern, Ark.

Fungi Injurious to Forest Trees. Byron D. Halstead.

Forests in Connection with Water as Aids to Climatic Amelioration. T. T. Lyon, South Hare, Mich.

The Forests of the United States, as shown by the census of 1880. N. H. Egleston, Williamstown, Mass.

Forest Culture, Surveys, &c. Gen. W. Burns, U.S. Army.

Economic Tree Planting, How and Where? B. Galt.

The mills of West York. J. Jenkins, Winona.

Individual effort in preserving and propagating trees. Dr. Reginald A. King, Compton, P. Q.

Profitable Forest Culture. E. E. Thorne, Springfield, O.

What to Plant for Forest Trees for Groves and Wind-breaks. Sam'l Foster, Muscatine, Ia.

Canada's forests and her future as a steel producer. Edward Haycock, Ottawa.

Climatological range and geographical distribution of forests, and the climate favorable to them. E. Beaufort Hurlbert, LL.D., Ottawa.

Plan of instruction in an American school of Forestry. Prof. Ad. Leuc, Cincinnati.

The relation of forests to Agriculture. A. G. Humphrey, M.D., Galesburg, Ill.

Forestry from a hygienic standpoint. Henry Howard. M.D., Montreal.

A PUBLIC MEETING.

In the evening of August 21st the Congress met as a body in the Queen's Hall, which was appropriately decorated. The public were admitted and were present in large numbers.

The MAYOR took the chair and welcomed the visitors. The Hon. Mr. Joly, Dr. Hough, and Mr. Beadle, of St. Catharines, Ont., gave able and interesting addresses on the subject of the meeting.

CONSOLIDATING THE SOCIETIES.

When the Congress was reassembled on Tuesday morning, the committee on the proposed amalgamation presented a report in favor of combining the American Forestry Association and the American Forestry Congress under the latter name, and the union was carried.

A FORESTRY JOURNAL.

The question of establishing a Forestry journal and other subjects of interest were then considered. The Chairman said it was proposed to publish a journal of forestry, and a strong publishing house in Cincinnati, Robert Clarke & Co., had offered to undertake it. But they required one hundred more members, and the agent of the house was present to take subscriptions. Another matter that should be discussed here was the necessity of Government devoting some of its revenue to the promotion of the interests of forestry.

A LUMBERMAN'S VIEWS.

Mr. J. K. WARD then read a paper to show the importance of preserving our forests. He stated that at present the production of lumber in Canada amounted to 2,000 million feet per annum, and 12 million saw logs eighteen inches by twelve. Nine-tenths of this lumber is exported, giving a return of some $25,000,000. To produce the above quantity of lumber it requires a million acres of land to be gone over. There can be no question as to the necessity of taking means to make the best use of our standing timber, and in utilizing it—first, in greater economy in manufacturing it, both in the mill and in the woods, discouraging as much as possible the making of square timber. Second, in government land the laws now applied to pine should extend to spruce and tamarac. that is, that nothing less than twelve inches at the stump should be cut down. Third, fires should be more carefully watched and prevented. In his thirty years' experience he had come to the conclusion that most of the forest fires were due to the fishermen and hunters. In view of this he would suggest that Government would employ as many men as necessary in each agency to look after and trace the origin of fires, and bring the offenders to justice. The quantity of timber land under license in the Province of Quebec to-day was 40,000 square miles. In the other provinces there was about the same extent. The quantity of timber land now in Canada was something like fifty million acres of land, and at the present rate of production this quantity of timber would last for about fifty years to come. It was beginning to be said now in Canada that cotton was king, but a glance at the present proportion of the lumber industry would show that lumber was king in Canada.

THE PRESIDENT SPEAKS.

The President, Dr. Loring, Commissioner of Agriculture for the United States, who had been unavoidably detained, but had now arrived and taken the chair, delivered an address which showed his mastery of the subject. He dwelt upon its great importance from many points of view, and spoke of the pressing necessity of putting a limit to the present distruction. He did not under rate the magnitude of the work of preserving our forest, and spreading a knowledge of forestry.

FOREST FIRES.

DR. CHAS. MOHR read the report of the committee of the last meeting of the congress upon the injuries caused by forest fires, among which was mentioned the practice of circling trees in order to secure the gum that exudes from the wound, for purposes of commerce. Another cause of injury to forests is the partial burning over of timber lands by fires, which, though it may not kill the trees, almost entirely arrests their growth. Moreover, these frequent fires finally result in the total destruction of the organic matter in the soil. The pasturing of cattle in the woods, a custom very common in the country, is also a cause of gradual but sure destruction to the forests on account of the cattle browsing the leaves off the young and growing trees, so that when the old trees die out, there are no saplings to take their places.

(*Continued on page 262.*)

GO SLOW.

The Petoskey, Mich., *Record* advises the farmers of Emmet county, in that state, to "clear away the majestic maples" for the purpose of growing grass, because a stalk of timothy has been produced in that vicinity nearly six feet tall. Probably the advice will be followed, as farmers are rapidly settling on the hardwood lands of northern Michigan, and the splendid deciduous timber of that region will be rapidly slaughtered and reduced to ashes in the log heap. The same process has gone on during the progress of settlement ever since the first sound of an axe rang out over Massachusetts Bay. Before there was any considerable use for hardwoods in manufacture, the sacrifice of upland forests in the eastern states appeared to be necessary in order to obtain cultivatable areas. That necessity followed the Connecticut and Pennsylvania settlers to Ohio, and the New Yorkers to Southern Michigan. But in these more modern days, when the manufacture of agricultural implements, railroad cars, furniture, and the interior finishing of fine houses has made a market for hardwoods, it seems like a great waste of natural wealth to cut and burn up the "majestic maples" of northern Michigan for the only purpose of getting them out of the way, so that the land on which they grow can be cultivated. It seems as if there were a better way.

The *Lumberman* is not an agricultural journal, but it is bound to have its eyes open and take a common-sense view of things ; and since a number of our largest operators have devoted their denuded lands to farming, this journal has a right to slip in a word now and then about the most profitable disposition of forest lands, after the timber is cut off, as well as while it is standing.

If there was excuse for the slaughter of forests in the earlier history of this country's settlement there is none now. If there is excuse for such sacrifice in the remote sections of the South or West at the present time, there is none for the settlers in northern Michigan, where the means of transportation by water and rail to the best hardwood markets of the country are abundant. The farmer who goes upon a piece of forest land in northern Michigan with the object of "hewing out a farm," as the poets say, is inclined to go a trifle too fast. He is anxious to clear up his farm so as to get on in the world. Large fields of grain and pastures are what he aims to have as soon as possible. For this reason he looks upon the standing trees, be they ever so straight and tall and fine, as in the way of his progress, and he attacks them, lays them low, with the only object of clearing them off the land, and with little or no thought of their value. If he would reflect that at the longest not more than five years will elapse before he can sell every tree for a good price, he would be inclined to drop the uplifted axe before it cleaves many a choice tree. It is true that the new occupier of forest land needs crops to support his family and feed his stock. But a five-acre patch, well cultivated, is better than 25 acres "hogged over," as the good farmers say. The disposition of the new settler in the woods, or on the prairie, is to be shiftless with his farming and cover too much ground. A farmer who is trying to clear up forest land is especially inclined to slash down a great deal more than he can clear perfectly. If the new settlers on Michigan forest lands would cut off the timber no faster than they can clear the land well, they would make money by raising better crops, and by saving their timber. It would be well for them, when they begin upon their lands, to look about and see that their trees constitute a source of wealth that, if economized, will last them a number of years, and furnish a means of revenue in the winter time, when crops cannot be grown. Just at present many of them may be situated somewhat remote from dock or railway station, but in these times of rapid progress the day cannot be far distant before buyers will visit them at their homes and fairly beg for their timber. When the writer was a boy, maple wood in northern New York was worth but $1.25 a cord; now there is but little maple wood to be sold at any price, and a maple log is worth too much for lumber to be cut into wood. The time will come in northern Michigan, much sooner than it came in New York, when there will be neither maple nor beech to be cut into wood. Within ten years the man in Emmet, Cheboygan, Charlevoix, Antrim, Grand Traverse or any other country of northern Michigan, who has slaughtered his hardwood for the sole purpose of clearing up his farm, will feel like sitting in the ashes of his log heaps with a gunney bag about him, mentally clubbing himself, like the repentant codgers of old, because he was such a fool as to send up in smoke so much forest wealth.

The *Lumberman* advises the farmers of that section to go slow on land clearing. Chop just enough each year so that the best value can be got out of the timber, clear the denuded land well, and wait a little for the waggon of progress. It is bound to come not long hence—indeed, it is in sight now, and the noise of it can be heard down the stumpy road. Wait a little longer, and the value of your standing trees will be more than you could raise on your farms in the way of crops in half a lifetime. And while you are waiting and clearing your lands slowly, you will learn to be good farmers by force of circumstances.—*Northwestern Lumberman.*

TREES AND CLIMATE.

In the *International Review* for August, there is an interesting article by Dr. Felix Oswald upon the effect of trees upon climate. He says that, owing to the destruction of its forests, Southern Europe is now what Africa was a thousand years ago, a region of rapidly growing deserts. The effect upon the climate has been to change the gentle warmth of summer to burning heat, and the clear, crisp, healthful cold of winter to warmth and moisture that generate deadly fevers. Coming to this continent, he says that in the Atlantic States there was such a redundance of forests in the first place that their cutting away has not changed the climate for the worse ; that it has made the summers a trifle drier and the winter considerably warmer. In the west Indies and some of the Gulf States the clearing of the primeval forests has produced extensive sand-barrens, with sand drifts and scorching summers.

Dr. Oswald brings together many instances of the gain effected by tree planting. For years the coast dwellers in France have redeemed by judicious tree culture, about 10,000 acres per year, and in other portions of Europe 8,000 acres have been rendered habitable. The writer tells the story of Mehemet Ali who, half a century ago, decided to plant with trees the sand plains bn the coast of Egypt. It appears from a moderate estimate that 15,000,000 of fruit and forest trees were planted, eighty per cent. of which lived and throve. As a result, the average yearly rainfall has increased from 0.60 to 14 inches, and the summer temperature of Suez decreased from an average of 92 Fahrenheit to 86 degrees. Dr. Oswald would have such a reclamation and revolution as this begun in both the old world and the new, wherever the axe has made need of it. He urges the State authorities in the West to encourage tree planting on the prairies, and says that drouths will be unknown when there is a forest in every county.

Dr. Oswald may be somewhat sanguine over his hobby, but undoubtedly tree planting would add vastly to the climatic advantages of regions like Manitoba and the Northwest.—*Winnipeg Times.*

CHIPPEWA RED LAKE RESERVATION.

Representative Washburn's bill, now pending in Congress, for the colonization of the Chippewa Indians, and the sale of their reservations in northwestern Minnesota, contemplates the following :—The bill provides for the colonization of 10 reservations, and for removing the Indians to White Earth reservation. The lands from which it is designed to remove them are to be sold for their benefit. Mr. Washburn acknowledges that a strong opposition to the bill has developed in northwestern Minnesota and northeastern Dakota, and partly for that reason he has not felt so anxious as he otherwise would be for the passage of the bill at this session of congress. He says the people in the sections named have been clamouring ever since he has been in congress to have the lands of the Red Lake Reservation brought into market and sold, so that the population in that region might avail themselves of the timber there, but the moment any practical steps were taken to affect that object, a strong opposition arose, especially at Grand Forks, and protests against it have been sent to Congress. As a safeguard against any possible grab on the part of capitalistic rings, Mr. Washburn claims to have framed the bill so as to bar out such schemes. He says :—

The lands are to be sold in the smallest government subdivisions, to-wit, 40 acres, they having first been appraised by commissioners to be appointed by the Secretary of the Interior, 90 days' notice of sale being given, and in no case to be sold at less than $1.25 an acre. I had also proposed to amend the bill providing that only one-tenth of this land should be sold in any one year.

The opposition to the Washburn bill, as has before been stated, arises from a fear that the lumbermen of Minneapolis, or other capitalists, would gobble the pine lands before the less powerful, because less wealthy, interests at Grand Forks, or other places in the new Northwest, could get possession of their share of them. The matter is now likely to affect the next congressional election in northwest Minnesota. Possibly the reason why Mr. Washburn is not anxious for the passage of his bill this session is because the capitalists who have designs on the pine lands have signified their willingness to let the scheme rest for a while, with the object of tinkering the northwestern opposition with solder made out of gold and silver. With that object in view they can well wait a year or two, for the land cannot be sold till the Indian occupants are disposed of. In the meantime the Chippewas would like to know who is going to pay for the timber that will be stolen from them.—*Northwestern Lumberman.*

LUMBERING IN THE SOUTH.

The *Southern Lumberman*, published at Nashville, says :—The lumber trade of the upper Cumberland has been heavier during the season just closed than ever before. We are informed by Maj. L. T. Armstrong, president of the consolidated line of steamers plying between this city and points above, that for the season, commencing on the first of November, to the present time, fully 12,000,000 feet of sawed lumber has been brought down by his boats, all of which has entered into the trade here, having been purchased by our dealers and placed in yards, or shipped to various points east and west. Besides this amount, it is estimated that 2,000,000 feet more have been brought down by flatboats belonging to private parties and by raft. This lumber consisted of poplar, walnut and ash, with some oak, though of the latter the quantity was was not very considerable. The shipments were made from Creelsboro, 335 miles by water from Nashville, and from a few points above, all the way down to the city, the largest proportion being from Selina, in Clay county, and other landings in that region. A large amount of this lumber was walnut of good quality, which brought high prices. Owing to an almost total failure of the crops last year in the upper counties, the people along the river cut and hauled more logs than has ever been done before, and this accounts for the greatly increased cut of the mills. The season has closed, and most of the mils have shut down for want of logs, and will continue idle until after the crops are laid by, when active operations will again begin, both with loggers and the mills, the product for next season will not be so great by several million feet as that of the present year, for the reason that accessible timber is beginning to be scarce, and the large crops likely to be made will require more of the time of farmers.

DEMAND FOR CHARCOAL.

Mr. J. A. Mathieu has recently contracted to put in eighty charcoal retorts at Birmingham, Ala., for the purpose of supplying a blast furnace at that place with coal. If the southern lumbermen would depart from the ways of the saw mill men in the north, and, instead of erecting hells to burn the refuse of the mills, would put in retorts and reduce their slabs and the lumber too poor to ship to charcoal, it would be money in their pockets. The lack of shipping facilities would prevent many of them from doing this, but along the waterways where cheap freight rates can be obtained it would be feasible and profitable. Ironmakers recognize the value of charcoal, and, if it can be obtained, will use no other, providing they are ambitious to turn out the best quality of iron. The demand for this kind of coal will constantly increase, and for years to come they will probably be ready to take all the charcoal that will be put on the market. In fact a surplus of charcoal has not been known. To say nothing about the call that is made for it in the manufacture of iron, large quantities are used in every city for various purposes. In a large city it always finds ready sales, and the lumber manufacturers who are located within easy reach of such cities ought to put in retorts and derive a handsome profit therefrom.—*Northwestern Lumberman.*

NO SCARCITY APPARENT.

The *Timber Trades Journal* says :—The alleged scarcity of timber abroad is slow to show itself in this country, where the only thing the trade is afraid of is getting too much of it. Large cargoes come rolling into London, one over the other, as it were, as fast as berths can be found for the ships, and the cry is, "still they come." Ninety-seven arrivals of timber-laden vessels were reported at the Custom House the week ending the 2nd of August, forty of which were steamers. To say the least of it there is no evidence in this lot that any description of wood is running short abroad. We occasionally get a remonstrance from some foreign house or their representative here, because we refrain from adopting their theories, and urging them more warmly on our readers ; we must refer them for our excuse to the shipping lists. When vessels return without cargoes, or half empty, because timber to load them was not to be had, we shall be ready to join with the shippers in recommending importers to secure what they can for their trade on such terms as are fairly obtainable and on the first opportunity that presents itself.

A BIG SAW MILL.

A correspondent writes :—During the week I had an opportunity of visiting the beautiful new saw mill of the Georgian Bay Lumbering Co. at Waubaushene. The mill has been running about four months, and is scarcely in good running order yet. It is a beautiful structure, built on the site of the old mill that was burnt last fall, at a cost of $85,000. The main building is 126 × 70 ft. with an engine house attached of 20 × 30, a boiler house of 36 × 40, and a machine shop of 60 × 80. The buildings are fitted up with the very best and latest styles of machinery, and it employs 71 men. The mill is driven by two large twin engines of 250 horse power each, and is so constructed that in case one engine breaks down it can be disconnected, and the mill driven by the other. The cylinders are 25 in. bore by 26 in. stroke, and drive three gangs of saws (1 stock pony and a slabbing gang) two twin circular saws, one large circular saw and the lath mill. With these saws they turn out an average of 150,000 feet of lumber and 30,000 lath per day of 11 hours. They saw an average of 1,200 logs per day.

TIMBER LAND SALE.

The *Northwestern Lumberman* says the Commissioner of the Federal Land Office at Washington, on August 11, forwarded to the receiver and register, at Duluth, Minn., a proclamation announcing a public sale of lands at Duluth on December 4. The offering will comprise the vacant land in about 135 townships, situated north and west of Duluth, much of it covered with pine. Lists for the offering of isolated tracts of pine and agricultural lands, the sale to take place at St. Cloud, Minn., are being prepared, and it is expected that they will be ready some time in January, when the lands will be offered for sale.

ISAAC BEARINGER has returned to Duluth to remain, and it is said that he will engage extensively in lumber manufacturing. His plans contemplate the erection of a mill equal, if not superior to that of the Duluth Lumber Company. Two other concerns also intend to establish lumber operations at Duluth the coming fall, but their names are withheld by the local papers.

FOREST LAWS.

The *Lumberman's Gazette*, of Bay City, Mich., says :—Europe, in its forest laws, is far ahead of the United States, and is in less danger, at this moment, of becoming a desert than is the United States, unless something prompt and effective shall be done to arrest the wholesale destruction of timber which is still going on in all parts of the country. It has been truly said that growth is slow and restorations tedious, while destruction is rapid and injury instantaneous. Palestine and Syria, Egypt and Italy, France and Spain, have seen some of their most fertile lands turned into deserts by the destruction of the forests. There are parts of Asia Minor, of northern Africa, of Greece, and even of Alpine Europe, once covered with luxuriant woods, verdant pastures and fertile meadows, which have now become so completely desolate as to be rendered an unfit abode for man. We are really in danger here of such a result in some sections of the country, unless intelligent and immediate measures of remedy are adopted.

Doors Shrinking.

It has been asked of us how we are able to account for the fact that the panels of inside doors, made of thoroughly seasoned wood, so frequently shrink when the doors are hung inside newly-built houses. To this natural inquiry we would point out that wood is an exceedingly elastic material, expanding in an exact degree to the amount of moisture it absorbs, and shrinking again just in proportion as the moisture evaporates. Highly-dried wood absorbs moisture readily, and newly-built houses are usually full of damp air. It would appear to be further the fact that, with the evaporation of the absorbed moisture, some of the natural sap exudes, and thus even highly-dried wood becomes further shrunken. With well painted doors this shrinkage is not so apparent, and we should advise those who cannot wait for a house to be thoroughly dried, to have all the woodwork thickly coated before fixing it in its place in a new building.—*Timber Trades Journal.*

Two Thousand Years Old.

A mine has been found in the mountain near Salzberg, Austria, which gives indications of having been occupied and abandoned at least 2,000 years ago. It contains a large and confused mass of timbers, which were used for support, and a number of miners' implements. The timbers were notched and sharpened, but were subject to an inundation and left in confused heaps. The implements were mainly wooden shovels, axe handles, &c. The probabilities are that the ancient salt miners were overtaken by the flooding of the mine, as mummified bodies have been discovered also.

THE *Pontiac Advance* says a raft of timber belonging to Mr. George Taggart has arrived there from the Quinze Rapids, at the head of Temiscamingue Lake, being the first ever taken from that place. The "fifteens," so called from the number of them, are altogether some fifteen or twenty miles long, and located near the headwaters of the Ottawa River. It is said they are nearly two hundred miles from Mattawan village. Heretofore lumbermen have not cared to venture so high up, besides considering the rapids impracticable for the descent of timber. Mr. Taggart has, however, proved this not to be the case, and doubtless others will try next season.

THE first raft that came through Victoria creek, upwards of 350 miles above Ottawa, Canada, is owned by R. & J. White, who have spent nearly $30,000 in getting their timber through, many important improvements being made. The craft contained 130 cribs of first-class pine.

There is a company with 60 hands engaged in cutting walnut timber near Arkansas City, Ark. The most of the force is on Walnut Lake. The timber will be shipped to London.

The *Northwestern Lumberman* says that kindling wood factories are becoming numerous, a new one being heard from at a saw mill town every day.

WOODEN PLATTERS.

One of the curious industries of the country has its principal homes at New Berne, N.C. This is the manufacture of wooden platters, plates and trays. The timber used for this purpose is supplied by the neighboring swamp. A huge log is rounded by a circular plane and then put into a machine, which, with great accuracy and swiftness, cuts off thin strips of the wood. When these strips have been cut into square pieces and thoroughly dried they are made pliable by steam. In that condition they are moulded in the shapes desired. The factory is now making 100,000 plates a day, according to report, which is hard to believe.

THE *Timber Trades Journal* says a misconception appears to exist in the minds of some of those who require to have their wood submitted to the process of creosoting. Wood that has simply been "pickled" in creosote is not in any way improved by the process. Creosoting properly conducted is another and separate matter altogether. It consists in the wood first being dried. It is then placed in a cylinder, and the air is extracted from the pores of the wood by means of an air pump. Creosote is then let in, and finally forcibly injected. By this process the wood becomes thoroughly impregnated with the creosote oil, and it is then, and only then, benefited.

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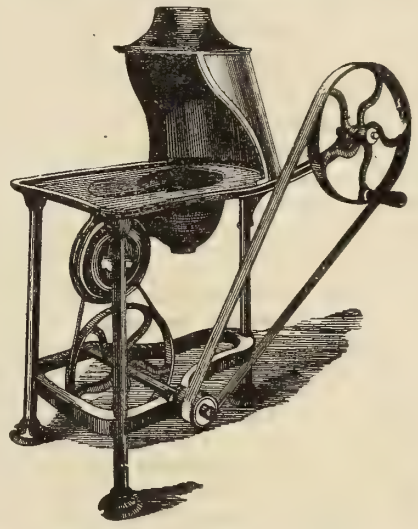

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. SEPT. 1, 1882.

THE FORESTRY CONGRESS.

THE recent meeting of the American Forestry Congress at Montreal cannot fail to have a beneficial effect. The growing attention paid to the subject of the preservation of the remaining forest, and the establishment of plantations on the prairies, is manifest by the numerous articles on the subject that have with increasing frequency appeared in the journals both of Canada and the United States. It is evident that the conviction is spreading that in the past there has been far from an economical use of our forest wealth, probably because it had been looked upon as practically inexhaustible, and that we must adopt a more prudent and provident course in the future.

The attendance at this Congress shows that it was not a meeting of mere enthusiasts riding a favorite hobby, for among them occur the names of politicians and officials of high standing, both in the Dominion and the States. Neither were they mere amateurs, whose enthusiasm might take an impracticable form, for among them were some of our leading lumbermen. Under such circumstances it might well be supposed that the proceedings would take a practical shape, and this, in truth, was the case. The papers read, the discussions held, and the steps taken, in many cases had a most practical bearing upon the subjects of economical forestry, and the great lumbering industry of this continent.

Among other useful results was the appointment of an influential committee to confer with the Governments of the Dominion and the United States and the various Provinces and States composing them. Among other valuable suggestions which will thus be authoritatively brought under the notice of the "powers that be," are the reservation as forests of timber lands unfit for settlement, the prohibition of burning at dangerous seasons, and the formation of forest districts with a competent staff. In some more or less modified form these suggestions, and others, may well be adopted so as to put an end to the present hap-hazard and wasteful system.

Much knowledge of these and kindred matters must have been disseminated by the late meeting, the contrast between our own uneconomical procedure with the more methodical systems of other countries have been forcibly brought out, and the power of combination and organization to improve the situation has been brought into play.

This meeting of the Forestry Congress in our chief commercial city is a most important event, and we trust that it is only the inauguration of a new era in our dealings with our forest wealth.

MR. H. GREY, of Acton, has been in Ottawa trying to purchase butternut timber; he has secured 4,000 feet from Mr. G. Masson, and is negotiating with Messrs. McLaren & Co. for 30,000 feet.

THE trees planted by Dakota and Minnesota farmers in the Red River valley are doing well, and in a few years where there was a treeless waste there will be a landscape, varigated groves and belts of timber.

THE *Timber Trades Journal* says :—As regards the present outlook, there is Alexandria offering a field of enterprise to some speculative spirit among our large traders here, who might relieve the London market, perhaps to his own profit, by transferring some of the stocks here to the chief port of Egypt, in view of the almost unlimited demand for building stuff that will be required should that city fall into the possession of the United Kingdom. We only throw out the suggestion, and think that worse business might be done than shipping half a dozen large steam cargoes of deals and flooring to the Khedive's dominions, and though the time is hardly ripe for such a speculation it is worth bearing in mind by those who have plenty of stock on hand and a dull market for it here.

FORESTRY CONGRESS.

(*Continued from page 259.*)

The report was on motion received, and the President called for remarks on the general subject of forest fires.

MR. P. WHITE, M. P., Renfrew, Ont., said that there was a difference in the regulations respecting timber lands in the United States and Canada. In the United States timber lands became the exclusive property of the occupant, whilst in Canada the Government retained the ownership, and only leased the use for a term of years. He was convinced that in the Upper Ottawa district as much timber had been consumed by fire as had been cut down and carried away, to the value of at least twenty millions a year in each case. Not only were those fires caused by sportsmen, fishermen and hunters, but also by the settlers in clearing their lands, and even by the criminal carelessness of the employees of the lumbermen themselves. He would suggest that the Provincial Government should intervene. In Ontario settlers were not permitted to burn their brush from April to November, while in Quebec the restriction only applied to the months of July and August. This restriction should be extended at least to the months of June and September. The authorities should take the precaution of dividing the timber lands into convenient districts and place them under the supervision of agents, who should visit every settler and acquaint him with the penalties that the Government should hereafter visit upon the careless setting of fires. There was very little malicious setting of fires; it was, in nine cases out of ten, the result of carelessness, In the Ottawa section the lumbermen had endeavored to co-operate in preventing fires, but their experience showed that only Government authority would suffice. The lumbermen themselves would not object to a special tax to meet the expenses of close governmental supervision.

The Hon. GEORGE BRYSON heartily concurred in Mr. White's suggestions as to the means of preventing forest fires. The months of May, June, September and October were those during which nearly all the destructive fires took place on the Ottawa. Some twenty-five years ago he was examined before a committee of the House of Commons, when he stated that for every tree that was cut ten were destroyed by fire. That proportion did not continue now, but his opinion was that for a great many years ten times as much timber was destroyed by fire as was cut and used.

Mr. THISTLE advocated Government supervision of the forests in order to prevent devastating fires. The immense regions beyond the Ottawa forming the water shed toward Hudson's Bay, were once covered with valuable forests which had been almost completely destroyed by fire.

Mr. J. K. WARD said if the authorities took half the pains to prosecute malicious forest incendiaries that they did to punish a poor wretch who stole a dollar's worth of goods, it would have a beneficial deterrent effect.

Several other members spoke to a similar effect.

The CHAIRMAN, there being no more speakers on the subject, thanked the Congress for the practical statements and suggestions which had been put forth. He especially wished to emphasize a suggestion that a man who would set fire to the woods but not to a barn, should be taught that one crime was as great as the other.

APPEAL TO THE GOVERNMENT.

Hon. Mr. JOLY moved that it is the duty of this Congress to draw earnestly the attention of the Government to the necessity of protecting effectually the public forests against fires. He proposed that a memorial should be sent to the Governments of the United States and Canada.

The motion was carried.

The following gentlemen were elected a committee to memorialize the Governments of the United States and Canada on the necessity of protecting public forests :—Messrs. Peter White, M. P., J. K. Ward, Dr. Mohr, Hon. George Bryson, Prof. Hough, and P. E. Furnow.

The Congress then adjourned until two o'clock.

FURTHER PROCEEDINGS.

In the afternoon the Congress again met and some of the papers, the titles of which we have given under the respective sections, were read. Space will not permit us to give the details at present.

In the evening there was again a public meeting and addresses were delivered by the Hon. Mr. Loring, President of the Congress and Commissioner of Agriculture for the United States, Gen. Eaton, Commissioner of Education for the United States, and the Hon. Mr. Joly.

LEGISLATION SUGGESTED.

The Hon. Mr. BRYSON presented the report of the committee appointed to memorialize the Governments on forest fires recommending legislation as follows :—

1. The reservation of all pine and spruce lands unfit for settlement for lumbering purposes exclusively.

2. The prohibition of burning brush by settlers in the vicinity of fir trees during May, June, September and October.

3. The division of timbered country into districts and the appointment of forest police under a superintendent with magisterial powers, whose duty it shall be to detect and punish offenders and provide for the extinguishing of fires.

4. The cost of maintenance of this protective force, might partially be met by the imposition of a moderate tax on the parties owning or leasing timbered lands.

Mr. J. K. WARD suggested that August be substituted for October in the prohibitory season. October was, he thought, in Canada, a wet month.

Mr. BRYSON thought October a very bad month for fires, as the leaves were dry.

The report was adopted.

THE CONSTITUTION.

Mr. FURNOW presented the report of the committee appointed to revise the constitution, which was adopted.

BRANCH ASSOCIATIONS.

Mr. BEADLE offered a resolution that the secretary and officials furnish information and assistance for the organization of State and Provincial Forestry Associations.—Carried.

ELECTION OF OFFICERS.

The following gentlemen were elected officers for the ensuing year :—

President, Hon. G. B. Loring; First Vice-President, Hon. H. G. Joly; Second Vice-President, Dr. John A. Warder, North Bend, Ohio; Recording Secretary, Dr. F. B. Hough, Chief of Forestry, Washington; Corresponding Secretary, Mr. William Little, Montreal; Treasurer, Joseph S. Fay, Wood's Hall, Mass.

NEXT MEETING.

It was suggested that the next meeting of the Congress should be at Minneapolis, but the place and date were left for the Executive Committee to appoint.

Mr. HICKS moved that the executive committee make arrangements for getting papers to be read at next annual meeting, on the planting, cultivation, preservation and management of the white pine. Such papers would be especially interesting if they met at Minneapolis, the centre of a white pine region. Carried.

VOTE OF THANKS.

The following votes of thanks were passed by the Congress :—To the Governments of Ontario and Quebec for sending delegates; to the mayor and citizens generally of Montreal; to the press; to the various railway and steamboat companies who had provided facilities to the delegates; to Mr. James Little, for his achievements in aid of forestry; to Mr. Wm. Little, in the most special manner, for his earnest and energetic labors in securing the great success of the meeting; to Dr. Warder; to the Commissioner of Crown Lands of Quebec, for a collection of samples of the woods of Canada; to the Geological Survey, of Ottawa, for a set of reports; to the Quebec Government, for maps and books; to the citizens of Ottawa, for an invitation to that city; to A.A.A.S., for invitation to excursions; to the ladies of America for their work in aid of forestry; to the Montreal Amateur Athletic Society for the offer of their library, etc., for the use of the Congress delegates; and to the gentlemen who had contributed papers to the meeting.

CONGRESS ADJOURNED.

The Congress finally adjourned at 11 o'clock, until such time and place as the Executive Committee may appoint.

The Springs Did No Good.

The following item is given for the consideration of those of our readers who are in search of just such an article as that referred to in the following statement of Mrs. Geo. A. Clarke, a well known lady of St. Catherines: "I cannot refrain," says Mrs. C., "from bearing testimony to the wonderful effects produced by the use of the very best remedy in the world, St. Jacobs Oil, for rheumatism. I had rheumatism and dropsey and did not walk a step for fifteen years. I tried nearly everything our most skilful physicians prescribed—Clinton Springs—St. Catherine Spring, etc., residing with a celebrated German doctor who pronounced my case incurable. Thinking everything of no use I was induced to try St. Jacobs Oil, and it has certainly done wonders for me. I heartily recommend it to any who may be suffering as I did. I have not had any use of my right arm for more than a year; now, however, I can raise it very nearly to my head."

J. R. BOND, Druggist, &c., Schomberg writes, "I have sold medicines for ever twenty years, and no medicine could give better satisfaction than your Dr. Fowler's Extract of Wild Strawberry." This medicine is the old reliable cure for Cholera Morbus, Dysentery, and all Summer Complaints.

ROBERT A. WILSON, Dispensing Chemist, Brockville says under date of June 5th, 1882, "I have not the slightest hesitation in saying that Dr. Fowler's Extract of Wild Strawberry has given my customers more satisfaction than any medicine in my store for the cure of Summer Complaints; Diarrhœa, Dysentery, Pain in the Stomach, Sea Sickness, Piles, etc., you can use my name, etc."

A WORD OF CAUTION.—Beware of Opiates and powerful astringent drug in the treatment of Bowel Complaints, they may lull the pain and check Diarrhœa, ect., but are liable to produce inflammation. Dr. Fowler's Extract of Wild Strawberry is guaranteed safe and reliable, even for Infants, and is a specific for Cholera Morbus, Dysentery, Colic, Acute or Chronic Diarrhœa and Summer Complaints generally.

HOW ITS WORKS.—The purifying and healing properties of Dr. Fowler's Extract of Wild Strawberry impart a healthy tone to the diseased mucous surfaces of the Stomach and Bowels. Its cooling, soothing properties counteract pain, its antiseptic properties correct canker and foul humour, and its tonic astringent nature corrects all exhaustive discharges—Such as Dysentery, Diarrhœa, Cholera, Morbus, and Summer Complaints generally.

DYSPEPSIA is the most common of all diseases, and under ordinary drug treatment the most difficult to cure, it is a chronic weakness of the stomach with indigestion. The sensitive mucous membrane coating the stomach becomes irritated, and nearly all that enters the stomach continues to add fuel to the fire. Heartburn and Sour Eructions, Belching of Wind, Nausea, Headache, Variable Appetite, Costive Bowels, etc., are its prominent symptoms. Burdock Blood Bitters is a positive cure for this miserable disease.

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☞Send for Illustrated Catalogue.

THE military operations in the East will seriously affect the boxwood trade, which draws its supplies mainly from Asia Minor, Persia, &c., and which are shipped in parcels from Constantinople, and other ports in the Turkish Empire. The price of boxwood blocks for engravings has again advanced, and as soon as hostilities commenced in Egypt one of the largest London dealers in this wood visited the various ports in the Mediterranean, and bought up every consignment to be found.

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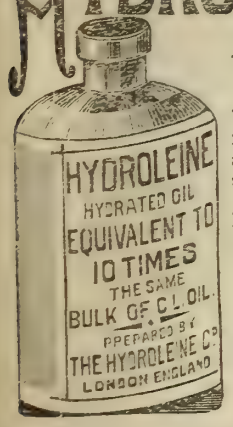

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The Proprietors will sell either the whole, or, if preferred, a part interest to Capitalists who will furnish the requisite means to work this Valuable Property on an extensive scale.

The extension of the Canadian Pacific Railway westward towards Manitoba, the establishment of steamboats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subsiding streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

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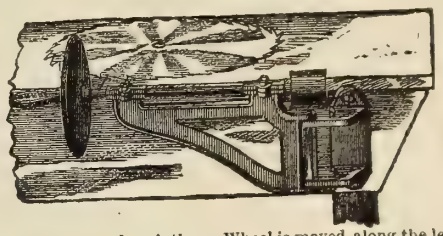

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A NEW INDUSTRY.

The latest industry which has seen the light of day at the capital is one for the erection of portable houses by the Logan Construction Company of Ottawa. To the untiring energy of Mr. G. J. O'Doherty the community is indebted for this new manufactory, which already gives employment to quite a number of artizans, although only in its swaddling bands. After considerable negotiations Mr. O'Doherty prevailed upon Mr. Logan, C. E. and M.E., a gentleman of great ability and well up in his profession, besides having a thorough understanding of constructing portable houses, to open up an industry of that character in the city. The company was formed, the work commenced, and in a very short time three local orders were fulfilled with great satisfaction to the purchasers. The only house worthy of mention among these is a neat little residence built for the Aylmer Toll Road Company, and which only came off the blocks a few days ago. In the meantime the Logan Construction Company are performing their operations on the bank of the Ottawa River, near the foot of Sussex street. There is as yet no "tall chimney" erected on the spot, but there is reason to believe that in the course of a very short time the firm will remove to new premises when such will be the case, the Skating Rink being leased for the purpose of prosecuting their operations on a much larger scale than is now the case.

What is commonly understood by portable houses is that a factory will supply sashes, doors, windows, lumber cut to size, and that some other place will supply the chimneys to some purchaser, who will ship the same to Manitoba or elsewhere, and in the course of time a dwelling will be constructed through the employment of skilled labour. The one mentioned, for which Mr. Logan holds a patent, is entirely different. It is constructed in sectional parts on the spot, and when completed can be taken apart, removed and set up again without driving one nail or employing a single artisan—indeed everything is so plain in this respect that "he who runs may read." The building is of a composite style of architecture. A look at the front of the structure shows an octagonal bay window, 8 feet wide and four feet deep, surmounted by a Tyrolese window 4 feet wide and 2 feet deep. The porch is a detached semi-octagonal, six feet in width, having a neat roof of the same shape and supported by iron posts, which besides have fancy capitals, the whole being surrounded by an exceedingly handsome balustrade of a new design. Over the porch there is a Tyrolese window with a plain panel above the roof, the front part projecting about two feet six inches and has a fancy berge board. The building is 20 feet in front by 32 feet deep, and 16 feet corner posts, the roof being one-third pitch. The side walls are divided into five sections each, and the roof into the same number, while the front and rear comprise six sections in all, and the floors four sections each. The simple putting together of these sections, which it may be said include outside and inside or the entire wall, enclose the house complete, when the arrangement of the interior may be proceeded with. Turning to the inside it was observed that there was a hall 16 feet long by 6 feet wide, on which was located the staircase for the purpose of ascending to the upper floor. Entrance from the hall is made by a door to the parlour, which is 20 feet by 13 feet 6 inches, the walls and ceiling of which are beautifully carved and pannelled. Adjoining the parlour and connected with it is the diningroom, which is 15 ft. 6 inches by 9 feet 6 inches. From the rear end of the hall entrance is made to the kitchen, which joins the diningroom to the right.

Space will not permit to describe the second storey of the building. Suffice it to say that the staircase, which is of a roomy, neat and handsome construction, some excellent work being displayed upon the bannisters, can be removed *en bloc*, as is the case with all the partitions in the interior of the building. The bedrooms are well ventilated and neatly arranged. The roof is an improvement on the car roof style, and is so constructed as to be entirely impervious to rain. It was omitted to state that the side walls are tongued and grooved, and put together with white lead, and in every respect of a lasting and endurable character. It is really marvellous to look upon the simplicity of the manner in which all the parts can be put together after being finished. For warmth, comfort, convenience, and appearance the house will compare with any wooden structure in Ottawa, besides possessing many novelties which are not in the latter. It cannot be wondered at that the edifice is attracting considerable attention and receiving many visitors, who one and all admire the workmanship. When completed, as it will be next week, it will be forwarded to Hon. H. J. Clarke, ex-Attorney-General for Manitoba, who is the purchaser.

It may be also stated that the company intend having one placed on the grounds during the exhibition at Toronto. As a good omen of success it may be observed that the firm have received an order for ten houses, and three stables, of 100 feet each, from the Government, for the North-West Mounted Police at Qu'-Appelle.—*Ottawa Citizen.*

RAILWAY LOGGING.

The Newaygo, Mich., *Tribune* describes the manner logging is done on Ryerson, Hill & Co's Pickerel lake and Muskegon river railroad, in that county, in the following manner:—On arriving at the lake we found a second train of 10 flat cars, loaded with logs and ready for the engine, which was at once attached, and leaving its empty train to be loaded, steamed off to the river, making the round trip in 30 minutes, on an average. As soon as the track was clear the empty cars were pushed alongside the skidway upon which the logs are placed, consisting of a platform of the requisite height, from one end of which extends an approach, up which the logs are hauled from the lake by means of an endless chain propelled by a stationary engine at the opposite end of the logway. Two men are stationed at the foot of the slide, who push the logs into proper position to be seized by the chain, and thus a continual supply is kept moving. As the logs reach the platform on top of the slide, they are rolled on to the logway and at once loaded on the waiting car by six loaders, three on a slide, who handle their canthooks with a skill and certainty wonderful to behold. As the logs reach the car the "catcher" places them in position, and as soon as the requisite number is loaded the car moves down the track and the binder dexterously encircles the load with his chain and fastens it securely, while an empty car takes the place of the one just loaded, and thus the process is repeated until the train of 10 cars is freighted with logs and ready for the returning engine which is to haul it to the rollway on the river. The average time used in loading a car is one and one-half minutes. An average of 270,000 feet a day is put over this road, and 15,000,000 feet has been taken from the lake and put into the Muskegon this season in less than sixty days. The firm has 200,000,000 feet of pine tributary to Pickerel lake.

RED OAK.

A Frankfort, Ky., correspondent makes an inquiry in another column about red oak, a wood regarding which there is much interest just now. This wood is now in much favor as a finishing wood, and is constantly and rapidly gaining in popularity. Compared with other finishing woods it has a large sale in this market. Red oak has been in stock at the yards for many years, but its value was never fully understood or appreciated until within the last two years, and since it began to be used more extensively it has gained ground constantly. Before it came into favor it was slow of sale, and only put to isolated uses. It was principally made into barrel staves and other rough stocks. When walnut began to get high, with cherry following suit, a search was made for a cheaper wood that would fill the bill, and a most valuable substitute was found in red oak. It has a rich and conspicuous grain, is easily worked, takes on a polish readily, and is much more economical than many of the woods deemed more fancy, which hardly present as good an interior effect. It is used generally in finishing and building, including balusters, newels, step plank, sideboards, floor and ceiling strips, etc. It is also put in office desks and furnishing, and is generally regarded a very neat wood. It sells in this market at about the same price as white oak, which is likewise a very pretty finishing wood when rift-sawed, though not much is used that way.

Red oak enters to some extent into manufacture also, but in this direction its province is limited. It is used some in the making of furniture, and takes the place of ash in certain wood-work in the manufacture of implements, and is made into poles and felloes. It is sometimes used in waggon-bottoms, in the absence of white oak. The latter is generally preferred, because it is a tougher and better wood, as a general thing. Some of the red oak, however, is regarded fully as good for durability and strength. That which grows in northern or central Michigan is considered by many handlers as better than that from the forests of southern Michigan and in Indiana, because it is harder, firmer and stronger. The farther south the wood is found the softer it is, which is the tendency with most woods. Some dealers had stocks on their hands for which there was no sale, the piles being simply a dead weight on business, through 1879-80, but the demand for wood during last year and this season effectively cleaned out such supplies, and now good red oak is in no sense a drug. There have been several good sales of red oak at the yards of late, and when it cannot readily be had dry, it is bought half dry or green, and kiln dried. We have already mentioned the fact that nearly 200,000 feet of this goes into the new First National Bank, of this city, and we know of other important contracts.

The wood is most used in thicknesses of 1¼, 1½, and 2-inch, 1-inch being less used. The lengths and widths run as in other lumber. Three and four-inch stuff enters into the sizes that are sawed, but are not so extensively employed. One and a half and two inch stuff, 12 inches wide and 12 feet long, is used for step plank, and heavier pieces for newel posts, etc.

This lumber has also been pushed somewhat in the Milwaukee, Wis., market. It is certain that good red oak is bound to be in favor wherever it is properly introduced.—*Northwestern Lumberman.*

THE BRITISH TRADE.

In an article on the official trades statistics of the United Kingdom the *Timber Trades Journal* says:—Turning now to the report of the timber traffic, we shall find several facts worthy of observation. The value of the wood imported in 1877 was estimated, including mahogany, at more than £20,000,000, the greatest amount it had yet attained to. In 1879 the value was only £11,200,000, a falling off in two years of more than £9,000,000 sterling, in a single branch of trade, with its subdivisions. In 1880 it recovered itself to £17,000,000, and last year it exceeded £15,400,000. Though apparently a sober, well-conducted, steady-going business, none seems to be subject to wilder fits of speculation than the timber trade. Fortunes made in 1876 were lost in the excessive importation of 1877; and it is remarkable that in five years of expanding trade and population the demand for foreign timber has never since justified such an importation as overwhelmed the trade in that unlucky year.

In comparison with its enormous import, there is a very limited export done in foreign timber from this country, but occasionally small shipments are made, chiefly to the Cape and Australia. Nor does this trade seem to be appreciably progressive. In 1877 we exported, all told, 49,587 loads, which quantity was not reached in any subsequent year till 1881, when the export extended to 65,307 loads, about as much as not infrequently comes into London in a single week during the import season. Ships now load full cargoes direct from Scandinavian ports for the southern regions, and the export of wood in its unmanufactured state from our shores is not likely to expand. When a ship is laying on for Australia partly laden, and no further cargo immediately offering, a hundred standards or so of flooring or deals are sometimes taken at low freight, or perhaps bought for the occasion, to fill her up. The commodity is light and imperishable, forms an excellent platform for other goods, does not run into much money, and is pretty sure to make a tolerable return for the outlay when it reaches its port of destination. Thus, within a certain limit, foreign timber will always be incidentally exported; but probably it would be useless to try and make a regular business of it, when by full cargoes, for which there is now a trade, it can be done cheaper from the loading ports abroad.

In the enumeration of quantities and values of the timber imported last year some anomalies occur which are difficult to reconcile. For instance, Russian square timber stands high in the English market, and generally fetches the best price going for European fir, but the importation of 224,421 loads of it is only valued in the Blue Book at £420,145, or not £2 per load, while 220,379 loads of hewn fir from British North America are set down at £888,070, or more than £4 per load. But our public sales would tell a very different tale. In the valuation of wood sawn or split, planed and dressed, from the same countries, the value is more equal, as thus:—

	Loads.	*Value.*
Russia	822,864	£2,102,018
British North America	987,481	2,468,063
Sweden	908,475	2,325,633

By this account it appears that British North America sent us more of this class of wood last year, both in quantity and value, than any other country.

No duties being levied, these valuations are far from reliable, as they are generally taken by word of mouth from the importer or his entering clerk, who may speak at random or in ignorance, as he is not required to verify. The figures may be taken as an approximation to truth nevertheless, as the mistakes *plus* and *minus* in all likelihood pretty nearly balance each other.

PENCIL CEDAR.

The *Southern Lumberman* has received inquiries from English parties in regard to red cedar for pencil stocks, and samples cut to pattern have been forwarded to London. American red cedar is the staple wood used for making lead pencils in all parts of the world, and the Tennessee cedar has been found well suited for the purpose. During the war the demand for it was great, and the difficulty of procuring it so considerable that a lumber dealer of Memphis made a handsome sum by buying up posts, that had been set some time, and shipping them to the North, where they were sold to pencil manufacturers. During the last year the shipment of pencil cedar to Liverpool, Eng., was 15,812 cubic feet against 11,263 feet in the previous year, and the stock there at last accounts was entirely exhausted. The present wholesale price in Liverpool for pencil cedar logs is 97 cents to $1.10 per cubic foot.

MR. J. MCALLISTER, a lumber merchant of Windsor, while engaged in watering square timber on the banks of Lake Erie recently, was forced over the bank by a large piece falling. About fifty feet of timber following fell on him, and death resulted almost instantly.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly as to its wonderful effects.

THE Rev. Charles E. Piper, formerly of Pittfield, N. H., but now of Wakefield, R. I., writes:—"I have used Baxter's Mandrake Bitters in my family for over two years, and as a result have not called a physician in the whole time. My wife had been an invalid for two years, but these bitters have cured her."

A SINGLE BOX of Mack's Magnetic Medicine will prove to any sufferer from nervous prostration or weakness of the generative organs, that it is the best and cheapest medicine ever sold for this class of diseases. Read the advertisement in another column and send at once for the great brain and nerve food.

C. BRITTON, Lindsay, Ont., writes:—"I have much pleasure in recommending Baxter's Mandrake Bitters in all cases of Jaundice, Biliousness, Sich Headache and Liver Complaint, for they have given universal satisfaction, and I have sold more of them the past season than any other one patent medicine."

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

WOOD AND PAPER.

Speaking of the relative qualities of paper made from wood and straw, and that made from rags, &c., the *Western Paper Trade* makes the following remarks :—Modern improvements in the quality and cheapness in the price of paper appear to have been coincident with the discovery and practicable application of new fibrous substitutes for rags in paper making. As early as 1772 Christian Schæffer published a book on papermaking, and Matthias Koops, in the beginning of this century, obtained a patent for extracting ink from waste paper, and reconverting it into white paper ; also for making paper from straw, thistles, hemp, &c., and different kinds of wood and bark ; and he actually printed a book in 1801 on paper made from wood and straw. Koops, in this book, stated that he had been able to produce the fine and strong paper upon which the book was printed, from straw and wood, without other mixture. Hofman, who had a copy of this remarkable book, wrote of it in 1873 :—"The last fifteen pages are printed on paper made entirely from wood ; it has the colour of light manilla, and is rather rough. The wood had evidently not been thoroughly reduced to pure fibre, but nevertheless the paper is strong and tough, and the printing shows well upon it."

"If the modern paper maker has not realized to the full extent the sanguine expectations of Matthias Koops, in the early years of this century, certainly straw and wood as papermaking materials have reached an importance that would surprise the original searcher in the field of valuable fibres. If we cannot yet make the purest white print paper out of wood, the progress in this direction has been great. A leading papermaker, who has been experimenting in this direction, recently said that he had arrived at a point where 90 per cent of wood to 10 per cent. of other fibres could be utilized in print paper with good effect, and he confidently looked forward to the time when even the 10 per cent. of rags or other material might be supplanted and the entire fabric made from wood."

LARGE CARGOES.

The Stockholm correspondent of the *Timber Trades Journal* says :—I have to chronicle the loading of the largest cargo of wood that ever left Sweden. This is the cargo per steamship *Prinz Georg*, of Hamburg, Captain D. zum Felde, for Avonmouth. The vessel, which is quite new, and on its first trip, loaded about 400 standards at Hudikswall and completed at Skonvik, Sundswall. This completing of the cargo represented, however, no less a quantity than 700 standards, total about 1,100 Petersburg standards. It is quite clear that, with the possibility of having the market crushed beneath the weight of such enormous quantities of goods as are now carried in single bottoms, importers in England will have to remodel their mode of business. They will have to keep as small stocks as possible, and do a hand-to-mouth trade, so as to avoid the risk of being caught when a glut of goods arrive. The small import places will either have to get their supplies from the large depots, or a class of steamers built carrying from 150 to 200 Petersburg standards.

English Oak Bark.

Messrs. Cleeve W. Hooper & Sons report in their July circular that the price of oak bark remains stationary. The quality is good, but with the quiet operations of tanners the consumption is by no means as great as formerly, although the high price of Australian bark has caused some increase in certain yards.

THE *Timber Trades Journal* says a largish parcel of Petersburg lathwood was bought for country consumption at £6 10s. a fathom, an apparently moderate reserve being placed on the stuff, which there was no difficulty in obtaining, for the bidding was offhand, and seemed to lie between a couple of provincial representatives who apparently had it all to themselves. The evident disposition of holders on this occasion was to sell if they could find buyers at anything like a reasonable figure, and with this in view the reserve values for most of the parcels were put at a limit that the room were able to advance upon and yet secure bargains.

Chips.

LOGS to the amount of 20,000,000 feet have been rafted thus far this season at the Bangor, Me., boom.

THE end of the Red River log drive arrived at Grand Forks, Dak., July 29. It is expected that the drive will reach Winnipeg about the last of August.

THE rapid development of the South in lumber production is indicated by the fact that at one time there were on track at Louisville, Ky., 30 carloads of mill and wood-working machinery that was in transit from the North.

THERE is a large foreign demand for the lumber of the Pacific coast. It goes to China, Japan, the South Sea Islands, Mexico, and the west coast of South America. Those markets are continually making large demands.

THE *Northwestern Lumberman* says the Fort Edward, N. Y., board of health wished to remove the accumulation of saw dust and driftwood in the river there, and to do so, poured kerosene oil on the mass and set it on fire. The stuff burned briskly for two days, presenting the novel spectacle of a river on fire.

THE *Timber Trades Journal* says the Quebec trade, like a large portion of the Baltic, will soon be in the hands of steamers altogether, and we see signs of it in the fact that many of the regular liners are dropping out of it through old age or other causes, but which all lead up to the same result, viz., handing over the carrying trade to steam vessels.

VERY few people, we presume, have any idea of the extent of the lumber business done in Emerson by our three lumber firms. One firm alone, that of Chalmers & Carney, have during the past month got in one hundred cars of lumber. They are now receiving a consignment of one million feet of lumber, which Mr. Chalmers recently purchased at points on Georgian Bay. It is brought up the lakes to Duluth and from there by rail.

UNDER the heading "Biting Into Our Sandwich," the *Northwestern Lumberman* says :—The Canadian lumber operators are fishing for some of the Australasian trade, an effort being made to capture Australian custom. Inducements held out have resulted in the appearance at Montreal of Mr. Sharpe, of Sharpe & Sons, Melbourne, Australia, where, it is stated, he has made arrangements for the direct shipping of lumber from Canada to Australia.

COL. PROSSER, United States timber agent, lately seized the log drive on the Yakima river, W.T., put in by the Northern Pacific Railroad Company. He claims that a large portion of the timber has been cut from lands belonging to the Government, the intention of the company being to use it in constructing the road at points remote from the Cascade division, when it should be used on that part of the line in order to entitle the company to the timber.

AN English paper says the favor which has during late years been accorded to pitch pine as an inside joinery wood is evidenced by the fact that our house painters are now imitating the grain. Pitch pine graining bids fair to become as popular as was oak graining twenty years ago. The grain of pitch pine can be very effectively copied, and the painted work has a pleasing and very clean appearance. The common bedroom furniture, which was so generally painted in vile imitation of maple and satinwood, is now effectively painted in imitation of ash and of other, what may be termed, "modern woods."

THE Glasgow correspondent of the *Timber Trades Journal* says the imports of American timber and deals to Clyde during the past week have been large, amounting to over 15,000 loads, The arrivals of Canadian deals alone at Glasgow sum up to 104,149 pieces, making a total since the season began of 292,000 pieces, which is considerably in excess of the quantity imported at corresponding date last year. The bulk of these have arrived per steamships. The prices obtained at Wednesday's sale held well up, the attendance being good, with a fair sprinkling of country buyers. Quebec spruce deals formed the bulk of what was disposed of, the offers made for the yellow pine deals not being considered sufficient by the brokers.

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N. H. DOWNS' ELIXIR!
Vegetable Balsamic
ELIXIR!
This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:
Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis,
and every species of oppression of the **Chest and Lungs.** In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that
CONSUMPTION
is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry: then becomes local fever and the pulse more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all morbid **irritations and inflammation** from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,
IT HEALS THE ULCERATED SURFACES
and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent articles, which are of so drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but, by removing the CAUSE, generally destroys the hectic before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price **25cts. and $1** per bottle. Sold everywhere.
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(Always takes First Prize.)
Rotary Saw Mills
IN FOUR SIZES, and other
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SEND FOR CIRCULAR.
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1L29 PRINCE EDWARD ISLAND

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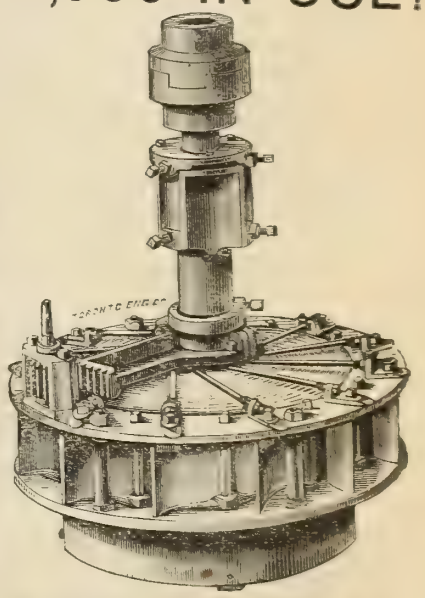

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Market Reports.

OTTAWA.

From our own Correspondent.

SALE OF TIMBER LIMITS.

AUG. 10th.—This afternoon a large number of our most prominent lumbermen and limit-owners were present at the sale of limits at the Grand Union Hotel. Bidding was extremely lively. The limits formerly belonged to the late Eugene Martineau, at one time Mayor of this city. They were put under the hammer by the Banque Martinale. The "Jean de Terre" limits, comprising 50 square miles each, were sold for $340 per square mile. The "Baldwin" limits, of 91¼ square miles, brought $300 per square mile, and the Temiscamingue limit of 50 square miles sold for $380 per square mile. These limits are all situated in the Valley of the Ottawa. Mr. E. Beaudet was the purchaser, having bid on the three lots put up.

NEW SLIDE MASTER.

Mr. W. Macdonald, slide master at Arnprior, will succeed Mr. John Macdonald, the slide master at this place who was recently superannuated. Mr. Harvey, formerly slide master at Arnprior, has been reappointed to that position.

THE DRIVE.

AUG. 25th.—At no season during the past twenty years has the timber drive been so complete and advanced as at present. Thus far the drive on the Ottawa has been completed to within some thirty miles of Pembroke, at which point the water is reported by agents lately returned to the city to have risen as much as ten inches within the past few days, and is still on the increase. The prevalence of high water will have a not less beneficial effect upon the season's cut, which, as already stated, will greatly exceed that of preceding years.

SCARCITY OF MEN.

Manufacturing operations which have been up to the present carried on unremittingly by all the lumbering firms in this district, promise to receive a check shortly from an anticipated scarcity of men. The causes for this are two-fold. During the past week several of the principal firms have been sending their advance gangs to the shanties which reduced their manufacturing staff in some cases to the lowest working quota. The high rate of wages offered by farmers throughout the country to harvest hands has induced numbers of men to quit work in the saw mills and accept that which affords a remuneration of $2 per day, if only for a limited season. The effect of this will probably be that in a few weeks at the farthest some of the mills will be compelled to discontinue night-work.

SQUARE TIMBER.

The market for square timber, which has been this season unprecedentedly stagnant, is reviving. A few sales have lately been made. Messrs. Thistle, Carswell & Co. have disposed of two rafts. The price obtained is said to be 32 cents for white and 22 for red pine.

LIMIT SALE.

The valuable property known as the North Nation Mills and Cameron limits were sold by auction yesterday at the Russell here. There was a large attendance of prominent lumbermen and limit-owners, and the bidding was lively. The property was started on a first bid of $20,000, and was knocked down to Mr. W. C. Edwards, of Rockland, for the sum of $100,000. The limits comprised 139 square miles.

CHIPS.

Mr. Oliver Latour, the enterprising lumberman, left on Tuesday last for Manitoba, where he goes on an exploring expedition. He will invest in limits in that province, if he sees his way clear.

Thirty car loads of lumber are being shipped daily from Messrs. McLachlin Bros.' mills at Arnprior. Water pipes have been laid throughout the lumber yards for protection against fire. The electric light will shortly illumine the whole premises.

TORONTO.

From our own Correspondent.

AUG. 22nd.—Both the local trade and shipments over the docks is still extremely quiet. Architects and their helps are able to take a long holiday without danger of their business suffering in consequence, and yet in spite of this dull state of things, there is a tendency upwards in prices, more especially on bill lumber and lath, the latter being scarce, and, as predicted in one of my spring letters, there is no prospect of lath selling this season at anything like as low figures as that reached last year. I still am under the impression that business over the docks during the fall months will be brisk. Our American cousins have been blessed with a bountiful harvest, which will stimulate to increased activity in building, and ready purchasers will be found for all the lumber we have to dispose of, and if our mill men will only take the pains to manufacture, sort and pile as carefully as the American manufacturer, they will be able to compete in any of the American ports with American lumber. Our pine is as good as theirs, and there is no reason why we should not realize as good prices, in the Eastern markets at least.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	16 50
Scantling and joist, up to 28 ft	17 00
" " " 30 ft	18 00
" " " 32 ft	20 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	30 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	26 00
Three uppers, Am. inspection	35 00
B. M.	
1½-inch flooring, dressed	30 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	12 50
XXX sawn shingles, ℔ M	2 50@3 00
XX sawn shingles	2 05
Sawn Lath	2 20

MONTREAL.

From our own Correspondent.

AUG. 25th.—The Forestry Congress which has taken place this week in this city will doubtless be of immense benefit to lumbermen, timber limit owners, and farmers, and the hints and suggestions made, if carried out, as they should be, ought to help to a large extent the saving of timber, the planting of new forests, and prevent the wholesale destruction of trees by fire. The proceedings of the Congress will be read and studied with much interest, as they show the experience of some of the best Arboriculturists in Canada and the United States.

Business has been good here since the date of our last report, imports are pretty heavy and stocks are well kept up, which seems to go as fast as it comes in. Prices in the yards keep steady; they do not vary much in this market, such as they do at ports where it is sold for shipment. A large number of rafts of square timber have passed here lately for Quebec. Very few rafts of saw logs pass here now, most of it being sawn into boards before leaving Ottawa. We continue to quote yard prices as follows:

Pine, 1st quality, ℔ M	$35 00@40 00
Pine, 2nd " ℔ M	22 00@24 00
Pine, shipping culls, ℔ M	14 00@16 00
Pine, 4th quality deals, ℔ M	11 00@12 00
Pine, mill culls, ℔ M	10 00@12 00
Spruce, ℔ M	10 00@13 00
Hemlock, ℔ M	9 00@10 00
Ash, run of log culls out, ℔ M	20 00@25 00
Bass, " ℔ M	17 00@20 00
Oak, ℔ M	40 00@50 00
Birch, ℔ M	20 00@25 00
Hard Maple, ℔ M	25 00@30 00
Lath, ℔ M	1 30@ 1 40
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 00@ 0 00

SHIPMENTS.

The shipments from this port since the date of our last report were as follows:—To Glasgow, 11,788 pcs; to Gloucester, 8,346 deal ends; to London, 56,618 pcs pine deals; to Buenos Ayres, 1,996,265 ft. lumber; to Montevideo, 490,107 ft. and to Rosairo, 364,420 ft. The total shipments to South America from the opening of navigation to date was 8,161,042 ft. Six ships have cleared for the River Plate since the 10th inst. Freights are unchanged.

CORDWOOD.

The military authorities have given out their contract for cordwood delivered in the city and on St. Helen's Island at about $8.50 per cord. Not much wood coming in either by water or rail. Demand continues slack and prices steady as under, ex cars and on the wharf:—

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	6 00
Short "	5 50
Tamarack	4 50@5 00

ST. JOHN, N. B.

From our own Correspondent.

AUG. 22nd.—There is no change in our lumber market worth mentioning since my last report, and prices remain about the same. Deals that are arriving are selling slowly at about $9. Freights still remain firm at my last quotations, with an advance of about 2s. 6d. for moderate sized vessels for Irish ports. Owing to the recent scarcity of vessels and unremunerative prices of deals in England, shippers have been accumulating much larger stocks than usual here, and this will of course have a tendency to maintain freights during the remainder of the season, which will also keep the price of lumber from advancing to any considerable extent.

Freights to-day may be quoted as firm at the following rates:—

Liverpool	71s. 3d. c. d.
Bristol Channel	70s. 0d. 72s. 6d. c. d.
Ireland	72s. 6d. to 77s. 6d. c. d.

SHIPPING.

The following is a list of the vessels in port, with their tonnage, destinations and rates of freight:—

Calliope, 1,202, Liverpool, 61s. 3d. c. d.
Eurydice, 1,247, " 70s. c. d.
Missouri, 818, " 62s. 6d. c. d.
Arabia, 957, " 71s. 3d. c. d.
Lottie Stewart, 742, Bristol Channel, 70s. c. d.
Unity, 420, " 67s. 6d. c. d.
Maiden City, 799, " 71s. 3d. c. d.
Lepreaux, 769, Limerick, 65s. c. d.
Fidelia, 450, Dublin, 72s. 72s. 6d. c. d.
Belle Star, 353, East Coast Ireland, 70s. c. d.
Annie Burrill, 897, Belfast, 65s. c. d.
Pernana, 424, Cork or Drogheda, 72s. 6d. c. d.
Minnie Hunter, 457, E. C. Ireland, 73s. 9d. c. d.
Cedar Croft, 1,098, Valentia, 65s. c. d.
Harriet Campbell, 649, Unchartered.

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881.			1882.		
Deals. M. S. ft.	*Pine. Tons.*	*Birch. Tons.*	*Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
131,822	768	2,962	118,814	359	3,890

VESSELS LOADING THIS DATE.

1881.		1882.	
Ships.	*Tons.*	*Ships.*	*Tons.*
18	14,717	18	11,776

ALBANY.

Quotations at the yards are as follows:—

Pine, clear, ℔ M	$57 00@64 00
Pine, fourths	57 00@59 00
Pine, selects	52 00@55 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 40@00 44
Pine, 10-in. plank, culls, each	00 20@00 22
Pine boards, 10-in	00 26@00 32
Pine, 10-in. boards, culls	00 20@00 21
Pine, 10-in. boards, 16 ft., ℔ M	30 00@33 00
Pine, 12-in. boards, 16 ft	30 00@33 00
Pine, 12-in. boards, 13 ft	27 00@29 00
Pine, 1¼ in. siding, select	45 00@47 00
Pine, 1¼-in. siding, common	19 00@21 00
Pine, 1-in. siding, select	45 00@46 00
Pine, inch siding, common	18 00@20 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ℔ M	40 00@43 00
Ash, second quality, ℔ M	25 00@30 00
Cherry, good, ℔ M	60 00@85 00
Cherry, common, ℔ M	25 00@35 00
Oak, good, ℔ M	40 00@43 00
Oak, second quality, ℔ M	20 00@25 00
Basswood, ℔ M	22 00@25 00
Hickory, ℔ M	40 00@40 00
Maple, Canada, ℔ M	28 00@30 00
Maple, American, per M	26 00@28 00
Chestnut, ℔ M	35 00@40 00
Shingles, shaved, pine, ℔ M	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 00
" cedar, mixed	0 00@ 3 50
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ℔ M	0 00@ 1 75
Lath, spruce, "	0 00@ 2 00
Lath, pine, "	0 00@ 2 25

CHICAGO.

The *Northwestern Lumberman* of August 26th says:—The cargo market has been somewhat better supplied during the past week, the favorable winds having enabled the fleets to arrive with more celerity. At the close of our last report a fleet commenced arriving, which placed 20 vessels at the dock for Friday's market, Saturday showing about the same number. Monday's fleet was 20 vessels, Tuesday's but about a dozen, Wednesday brought 20, and Thursday 23. Every day witnessed a pretty general clearing out of all the offerings, and at noon on Thursday there remained but three unsold cargoes on the market. Prices were well sustained at the quotations following, exceptional cargoes bringing more or less, according to their excellence or lack of desirability:—

CARGO QUOTATIONS.

Short dimension, green	$11 25@11 50
Long dimension	11 75@13 50
Boards and stripe, No. 2 stock	12 50@14 50
No. 1 stock	17 00@22 00
A	2 75@ 2 85
Clear	2 10@ 2 15
Lath	2 00@ 2 25

Receipts and stock on hand of lumber and shingles, etc., for the week ending Aug. 24, as reported by the Lumberman's Exchange:—

RECEIPTS.

	Lumber.	*Shingles.*
1882	62,746,000	17,505,000
1881	60,138,000	35,000,000

FROM JANUARY 1 TO AUG. 24 INCLUSIVE.

RECEIPTS.

	Lumber.	*Shingles.*
1882	1,187,574,000	496,982,000
1881	1,087,715,000	480,474,000
Inc	99,859,000	16,508,000

LAKE RECEIPTS TO AUG. 23.

1882	1,025,500,000	458,736,000

STOCK ON HAND AUG. 1.

	1882.	1881.	1880.
Lumber	511,903,574	422,404,156	412,841,039
Shingles	244,221,650	184,168,000	164,004,000
Lath	39,859,837	36,346,046	46,549,310
Pickets	1,717,165	2,777,053	1,232,450
Cedar posts	298,253	255,656	154,600

BOSTON.

The *Journal of Commerce* says:—There has been a very fair and steady inquiry for most kinds of western and eastern stock of soft woods, and values keep along on quiet a uniform basis. Southern pines continues rather dull, and prices are certainly no stronger. Hard woods meet with a fair inquiry and prices are well sustained.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@28 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

BUFFALO.

We quote cargo lots:—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

OSWEGO, N.Y.

Trade has been very quiet during August and the attendance of buyers in the market limited to those who were seeking to make an assortment. Stocks on hand are good and well assorted. We make some corrections in quotations, as noted. Canal and lake rates have advanced a little:—$1.80 to Albany and $2.50 to New York. Receipts to date, 1882, 121,000,000; 1881, 90,000,000; excess, 31,000,000.

Three uppers	$43 00@45 00
Pickings	33 00@35 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	12 00@15 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@38 00
1½ inch	35 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1½ inch mill run	14 00@20 00
" " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 00@ 4 35
XXX, 18 inch, cedar	3 75@ 3 75
Lath	1 80@ 1 90

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$46 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

BRISTOL.

The *Timber Trades Journal*, of August 12th, says:—Messrs. King Brothers' latest circular contains the following: We are pleased to be able to report a slightly better demand for timber. The importation, though heavy compared with last year, is not in excess of the average at this period. Quebec Goods.—Yellow pine timber—The new arrivals have been for railway purposes. Waney board pine still elicits enquiries. Red pine—We are unable to report business. Oak remains dull of sale, Birch,

ash, and walnut are enquired for, and the first arrivals will command a ready sale. Pine deals are still arriving by steamer, but are not much in demand. New Brunswick goods.—Spruce deals have arrived somewhat freely; the stiffness of the freight market is now favorably influencing their value. Pine deals—No stocks. Birch—A parcel has arrived; large sized wood will sell well.

GLASGOW.

The *Timber Trades Journal*, of August 12th, says:—The imports of wood to Clyde during the past week have been light for this season of the year; they comprise two cargoes of Quebec timber, one of pitch pine, one of New Brunswick deals, and a cargo of Tabasco mahogany and cedar.

At the auction sale held here on the 9th inst. the demand was quiet, and of the Quebec deals catalogued the bulk were withdrawn, offers not being considered sufficient by the brokers. A A portion was disposed of at the prices undernoted. In the selling of the small parcel American black walnut a strong demand was indicated for sound logs of large square.

On 9th inst., at Glasgow, Messrs. Edmiston & Mitchells, brokers:—

Quebec 1st pine deals—
10 & 11 ft. 12/24×3 2s. 8d. cub. ft.
" 13 " 10×3 2s. 4d. "
13 " 9×3 2s. 3d. "

Do. 1st pine planks—
6 to 14 ft. 6/13×2 2s. 1d. "

Do. 1st pine deal ends—
7 & 8 ft. 6/18×3 2s. 2d. "
6 " 7/18×3 2s. "

Do. 3rd pine deals—
11 ft. 11×3 1s. 1d. "
10 " 11×3 1s. 1d. "

A parcel of 18 logs American black walnut, 21 in. av. sq. string measure, sold at 4s. 8d. to 6s, 9d. per cub. ft., averaging 5s. 3¾d.

TYNE.

The *Timber Trades Journal*, of Aug. 12th, says:—Another week has added a good list of arrivals of wood cargoes to the already large importations reported recently, and every branch of wood-exporting countries appear fairly represented. More Quebec cargoes are to hand, and several more are daily expected; some pitch pine ships are delivering in the river, and although prices of the latter are a little weaker, a fair even trade is being done all round in it. For wood goods generally the demand is feeble, with the exception of American yellow pine, &c., and for it prices remain firm. So far this season the appearance of cargoes leaves little or nothing to be desired; they are clean and bright, and the delivery having been under sunny skies, the wood will turn out well at a later date. Stocks of red deals are getting larger, a great proportion of later arrivals having been placed to stock in Tyne Dock.

LIVERPOOL.

The *Timber Trades Journal*, of August 12th, says:—During the past week there has been a steady amount of business done in small orders, and it is apparent that consumers are at last beginning to realize the fact that the market is going against them, and that from the present appearance of things it is likely to be the case for some considerable time to come. One of the best criterions of this is to be found in the fact that there have been no wholesale transactions in spruce deals, which are being held firmly by the shippers' agents for higher prices. There are very few vessels engaged or loading in St. John, N. B., and it seems probable that at any rate for some time the supply will be moderate.

Quebec pine deals are also advancing in sympathy with the increase of freights and insurance, and there does not seem any chance of decline. Taken all around, there is a most lively tone in the market, and orders coming in make a more animated feeling than has been experienced for some time past.

LONDON.

The *Timber Trades Journal*, of August 12th, says:—The increase noticeable in the deliveries last week has not been unexpected, though it can hardly be attributable to the public sales, these having been on a more than usually limited scale. There are undoubtedly signs of a fresh stir in the trade in the renewed activity in the deliveries at the docks, though the general reports are not corroborative of it. At harvest time, however, we naturally look for some improvement, and undoubtedly the spell of fine weather we have been experiencing, though short, has given outdoor work a stimulus which may remotely affect prices in a favorable manner. In the f. o. b. trade several transactions have been concluded for late shipment at very fair prices all things considered—certainly better than the poor values obtained at the public sales would lead one to expect.

On the whole, so far as the season has gone, we think the shippers have very little to complain of. At the beginning of the year they managed to place the bulk of their open-water and summer shipments at full prices, and the subsequent concessions on goods for autumn shipment were comparatively insignificant, and even for fall shipment the present quotations are hardly 10 per cent. below the first price list issued in January last. This, in the face of immense stocks, both here and abroad, speaks well for the vitality of trade, and is due to the rapidly widening area of the field of consumption, which seems every succeeding season to be extending more and more.

WEST HARTLEPOOL.

The *Timber Trades Journal*, of August 12th, says:—In the new docks several large ships are discharging yellow pine deals and timber from Quebec and other American ports. The *Bucephalus*, with this class of wood, for Messrs. Harrison & Singleton, is said to be the largest sailing vessel which has ever entered these docks, having on board upwards of 400 standards of deals as well as 200 loads of timber.

In the big timber department of the trade there are not so many deliveries from stocks in pond, but there has been a better general supply of timber lately, and orders from these are plentiful. Oak is particularly in good demand, and from 60 to 70 loads are going away daily; the first shipments of timber from Quebec are also just now discharging, including parcels of waney board and white pine, elm, ash, birch and oak, and as there is scarcely any American timber left on hand from last year's supply, a considerable proportion of these shipments is certain to be sent away direct ex ship.

A. L. UNDERWOOD
WHOLESALE DEALER IN
White Pine, Basswood & Hardwood,
82 King Street East,
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Shingles, Doors, Sash, Flooring, &c.,
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STATE QUANTITIES AND PRICE TO
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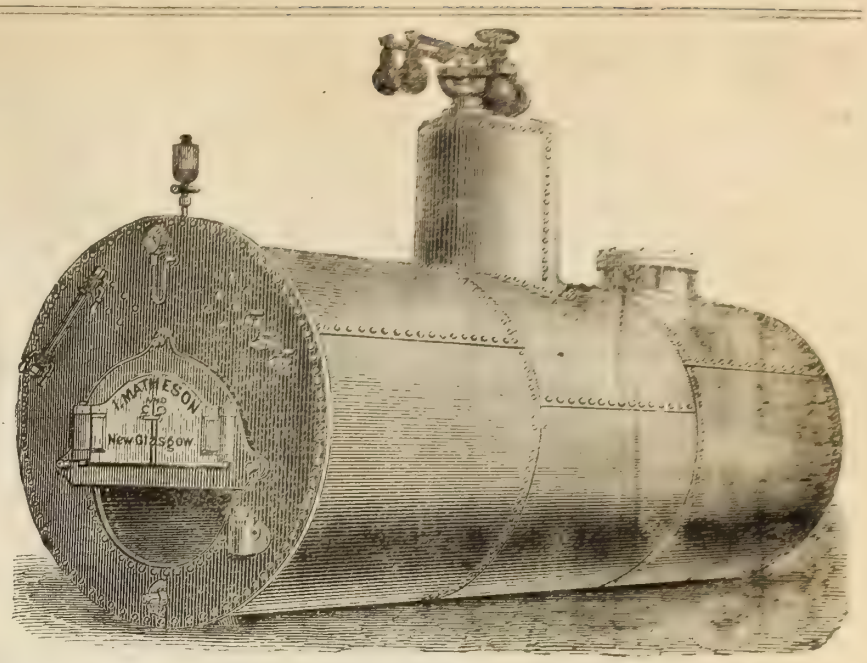

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I. MATHESON & Co ENGINEERS & BOILER MAKERS, NEW GLASGOW, N.S.
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PARKER & EVANS
SOLE PROPRIETORS OF THE
FAMOUS INTERNATIONAL
BOILER FLUID COMPOUND.
Patented 5th March, 1877.
This Compound will save its Cost many times in one year by saving fuel.
It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.
It is perfectly harmless to Iron, and emits a clear pure Steam.
In ordering, mention the CANADA LUMBERMAN. 1L19
504 St. Paul Street, MONTREAL.

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Alexandria Saw Works
SAINT JOHN, N.B.
Saws of all kinds manufactured from the BEST CAST STEEL that can be procured in any Market.
EVERY SAW WARRANTED.
SAWS REPAIRED in the best manner and on Short Notice.
Send Address for Price List, Terms, &c.
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JONES & SON,
Wholesale Lumber & Timber Dealers
39 Broadway, NEW YORK.
Oak, Ash, Cherry, Black Walnut, Poplar, Butternut
And all other Kinds of HARDWOOD LUMBER.
White and Yellow Pine Lumber and Timber.
Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.
L7

MAKING A SEAPORT.

The scheme of making Manchester(Eng.,)into a seaport is again on the tapis, and judging from the spirit of earnestness which is animating the advocates and promoters of the work, its accomplishment at a not far distant day seems highly probable. The project is the conversion of the River Irwell into a canal by widening and deepening it suitably throughout its course, some 38 miles, to the point at which it enters the Mersey, about 7 miles below Liverpool. The salt water tide would thus be admitted, and to the advantages of a waterway for ocean shipping would be superadded the obvious sanitary blessing of transforming what is now and has long been, a filthy disease-breeding stream, into a wholesome water stretch flushed twice in every twenty-four hours by the health-giving tide from the old ocean. The cost of the work is variously computed at from five to fifteen million sterling, and even at the largest sum mentioned, it is reasonably calculated that the enormous imports and exports through the canal would yield a good return upon the investment. The large outlay, moreover, that must be made for wharves or docks and warehouses, and the attendent increase in the value of property as a consequence, would form no inconsiderable addition to the city's wealth and importance. All this means, undoubtedly, a *protanto* diversion of traffic from Liverpool, the effects of which the latter city could not but seriously feel. The ultimate results, however, of such a work on all the various interests involved it is difficult to forecast, and impossible to estimate. We shall watch with interest the outcome of the agitation now rife in Manchester upon this matter.—*Monetary Times.*

RAFTS ARRIVED.

The Quebec *Chronicle* gives the following list of rafts, &c., arrived:—

Aug. 7—J. B. O. Latour, white pine, &c., Cap Rouge.

Perley & Pattee, white pine, &c., Hadlow cove.

B. Caldwell & Son, white and red pine, St. Lawrence Docks.

Fraser & McCoshen, white and red pine, St. Lawrence Docks.

Collins Bay Co., pine, etc., Sharples' cove.

Smith & Mackey, white and red pine, Cap Rouge.

Aug. 8—J. McRae & Co. and A. McIntyre, staves, Indian Cove West.

Higham Lot, deals, South Quebec.

Aug. 9—John Roche, deals, Wolfe's cove.

Aug. 10—Levi Young, red pine, Windsor cove.

A Lumber Company as a Farmer.

The Kirby-Carpenter Company is getting things fixed so that when its stumpage on the Menominee is used up the members of the company will have something to fall back on for a living. At its nine-mile farm a barn is being erected 36×150, with 20-foot posts, with a basement eight feet in the clear. The company has several farms, all in crop, and the harvest of hay is immense. The company will cut 700 or 800 tons of hay, and the harvest of root crops would suffice for a large section of Ireland's population. We shouldn't wonder if Mr. Carpenter would before long write a book on what he "knows about farming," like the lamented "H. G."—*Northwestern Lumberman.*

Swedish Forests.

The board of the Swedish Crown forests has just published its review for 1880, of which the following will no doubt interest our readers. The whole surface of the kingdom of Sweden is estimated at 10,051 acres, of which 8,892 acres, or 88·47 per cent., are covered with forests. Of these 1,409 acres are Crown forests, and the rest, or 7,483 acres, are private property, the latter being 74·45 per cent. of the whole area of the kingdom.

Cement For Leather Belting.

Common glue and isinglass, equal parts, soaked for ten hours in just enough water to cover them; bring gradually to a boiling heat and add pure tannin until the whole becomes ropy or appears like the white of an egg. Buff off the surfaces to be joined, apply this cement warm and clamp firmly.

Russian Saw Mills.

At the National Exhibition at Moscow, says the *Ironmonger*, is a saw mill put up by the Wyborg Mechanical Works, on the system usually adopted in Finland. The framing is a combination of timber and iron, produced in a cheap way, and admirably suited to the wants of Russia. The mill is complete with engine, driving gear, hauling gear, and circular saw, the frame being capable of taking in a 30 in. log, and with the boiler and all connections, including strapping, is sold for about £600. The work is not of that finish seen in the frames of Ransomes or other English makers, but for all practical purposes it answers the end in view by cutting 60 trees per day of 28 ft. average length. The frame alone costs £240 with gearing.

A New Demand.

The *Timber Trades Journal* says there appear to be some rather heavy shipments of firewood ends just now coming forward, and it would be interesting to know to what purpose, other than the making of firewood chips, the wood is being applied. We expect this demand for ends has grown out of the enormously increased number of small wooden boxes that are in these times required for such multifarious purposes. Thousands and tens of thousands of small domestic articles are now-a-days packed and sold in wooden boxes, and thus a new and exceedingly important branch of commerce has been established, which directly affects the interests of the wood trade.

Sweden and Australia.

The Stockholm correspondent of the *Timber Trades Journal* says:—The cargoes shipped to Australia are also getting very large, but the loading of these large Australian cargoes is much pleasanter for the shipper than the monster steamers to England. The *Maraval*, of Glasgow, an iron ship, carrying probably nearly 700 standards, is now in course of loading at Nacka, near Sundswall, by Mr. J. A. Enhorning, for Hobson's Bay. The Australian trade is now very important for Norrland, and is developing rapidly, as I have frequently of late had to point out.

ST. JACOBS OIL
TRADE MARK.

THE GREAT
GERMAN REMEDY.
FOR
RHEUMATISM,
Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,
Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

No Preparation on earth equals ST. JACOBS OIL as a *safe, sure, simple* and *cheap* External Remedy. A trial entails but the comparatively trifling outlay of **50 Cents**, and every one suffering with pain can have cheap and positive proof of its claims.

Directions in Eleven Languages.

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Cash advanced on Goods put in for sale. No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazelhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

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MANUFACTURERS and WHOLESALE DEALERS IN
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Four (4) Medals and Three (3) Diplomas awarded to them in 1881, by the Leading Exhibitions of the Dominion.

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Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

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Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills
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AMERICAN HEAVY
Oak Tanned Leather Belting

Rubber Belting, | Rubber Packing,
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LIGHTNING CANT-DOG
STEEL RING,

The Lightest, Cheapest and Most Durable Cant-Dog in the World.

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MEDICINE CHEST
A PURELY VEGETABLE MEDICINE
For INTERNAL and EXTERNAL use.
THE OLDEST BEST & MOST WIDELY KNOWN FAMILY MEDICINE

Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

COBOURG, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

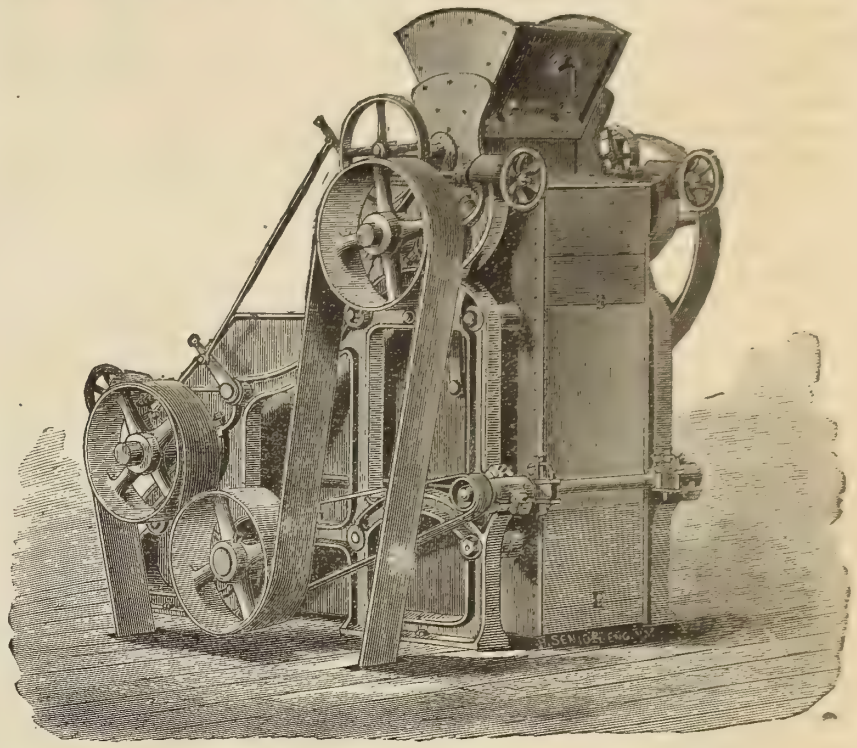
Yours, &c., J. E. KENNEDY

Beware of Counterfeits and Imitations.

Price 20c., 25c., and 50c. per bottle.

THE LATEST
For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT
Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

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MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

☞Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

1L19 Mention this Paper.

FLOORING BOARDS.

The *Timber Trades Journal* says it is interesting to observe how the favor for flooring boards of 6 in. and 7 in. widths has of recent years strengthened. Some years ago the importations of narrow boards exceeded those of the two sizes referred to. At the time that a large amount of common property was being erected cheapness of first cost appeared to be the primary, and indeed only, consideration. An experience, however, of the narrow boards went to prove that, although by their use a good floor was obtained, economy was not effected, and so favor has been extended to 6 in. and 7 in. boards, and more particularly to the 7 in., which is now generally regarded as being the most economical of all widths.

Mr. J. R. Booth has purchased Messrs. Barnet & Mackie's Indian River timber limits for $26,500. It is generally supposed that this is an excellent sale. Messrs. Barnet & Mackie will now lumber on the Mattawa and Nipissing districts.

One of the North German railways was some time back supplied with 1,000 young oaks, for an experiment in side planting for the sake of the bark.

Along the line of a proposed new road to touch at Katahdin Iron Works, Me., operators are preparing to get out ship timber, knees, hoops, and spool and pulp wood in large quantities, to be hauled by rail next winter.

The Belleville *Intelligencer* says the last piece of the timber drive passed through the harbor boom on Monday afternoon, Aug. 21. The number of pieces that came down the Moira this season is largely in excess of the number which came down last year and the year before. In 1880 the number was 232,434; in 1881, 326,033. We have obtained from the Harbor Master the number of pieces which were brought down by the Moira this season, as follows :— Logs, 434,305; ties, 42,176; cedars, 20,137; jots, 13,066; posts, 4,606; floats, 1,121; timbers, 63. Total, 515,375.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on July 31st, 1881 and 1882, and also the Consumption for the month of July, 1881 and 1882 :—

	Stock, July 31st, 1881.	*Stock, July 31st, 1882.*	*Consumption for the month of July, 1881.*	*Consumption for the month of July 1882.*
Quebec Square Pine	582,000 ft.	158,000 ft.	135,000 ft.	51,000 ft.
" Wancy Board	195,000 "	240,000 "		
St. John Pine	—	3,000 "	3,000 "	
Other Ports Pine	30,000 "	41,000 "	10,000 "	4,000 "
Red Pine	55,000 "	11,000 "	4,000 "	4,000 "
Pitch Pine, hewn	795,000 "	971,000 "	197,000 "	183,000 "
" Sawn (Logs and Planks)	663,000 "	949,000 "	184,000 "	504,000 "
Dantzig, &c., Fir	100,000 "	60,000 "	24,000 "	14,000 "
Sweden and Norway Fir	7,000 "	4,000 "	2,000 "	—
Oak, Canadian and American	414,000 "	290,000 "	23,000 "	19,000 "
" Planks	132,000 "	102,000 "	39,000 "	56,000 "
" Baltic	83,000 "	60,000 "	7,000 "	3,000 "
Elm	44,000 "	38,000 "	4,000 "	6,000 "
Birch	143,000 "	52,000 "	27,000 "	31,000 "
East India Teak	43,000 "	51,000 "	17,000 "	32,000 "
Greenheart	50,000 "	88,000 "	24,000 "	21,000 "
N. B. & N. S. Spruce Deals	16,428 stds	9,682 stds.	8,681 stds.	12,906 stds
" " Pine "	952 "	1,100 "		
Quebec Deals	8,657 "	5,133 "	2,651 "	2,177 "
Baltic Red Deals, &c	3,912 "	2,329 "	816 "	42 "
Norway, &c., Boards	162 "	92 "	132 "	34 "
" Boards Flooring	2,727 "	2,436 "	1,681 "	855 "

ADAM McKAY,

MANUFACTURER OF

Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1119

144 Upper Water Street, HALIFAX, N.S.

Represents

No. 5 20-Horse Power

FIRE-PROOF

CHAMPION

SAWMILL

ENGINE

WITH

SECTIONAL SAFETY BOILER.

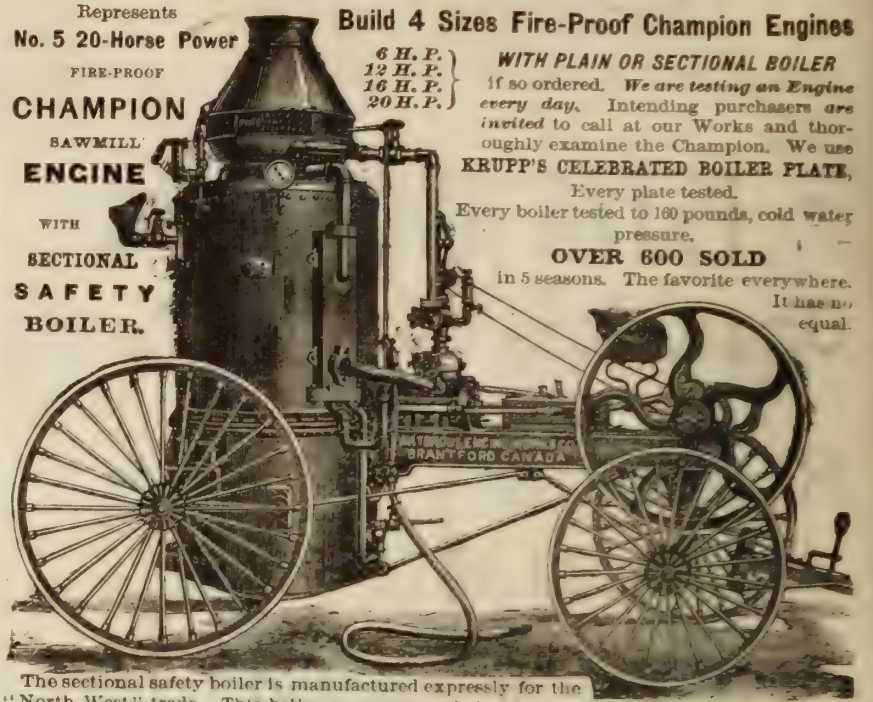
Build 4 Sizes Fire-Proof Champion Engines

6 H. P.
12 H. P.
16 H. P.
20 H. P.

WITH PLAIN OR SECTIONAL BOILER

if so ordered. *We are testing an Engine every day.* Intending purchasers *are invited* to call at our Works and thoroughly examine the Champion. We use **KRUPP'S CELEBRATED BOILER PLATE,** Every plate tested. Every boiler tested to 160 pounds, cold water pressure.

OVER 600 SOLD in 5 seasons. The favorite everywhere. It has no equal.



The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. *We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies.* Largely used by the Pacific Railway Company and all the large Colonization and Ranche Companies.

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LUMBERMEN'S STATIONERY.

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BOOK-BINDING of every Description got up in a very Neat and Superior manner.

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"THE CANADA LUMBERMAN,"

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HAMILTON, CANADA.

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EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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EMERY WHEELS FOR SAW GUMMING!

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eigths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ } ¾ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ } ¾ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ } ¾, ⅞ and 1 inch. Holes,

Probably more wheels 12x⅜, 12x½ and 12x⅝ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 13t13

Tanite Co. Stroudsburg, Monroe Co. Pennsylvania.

CANADIAN TRADE SPECIALLY SOLICITED.

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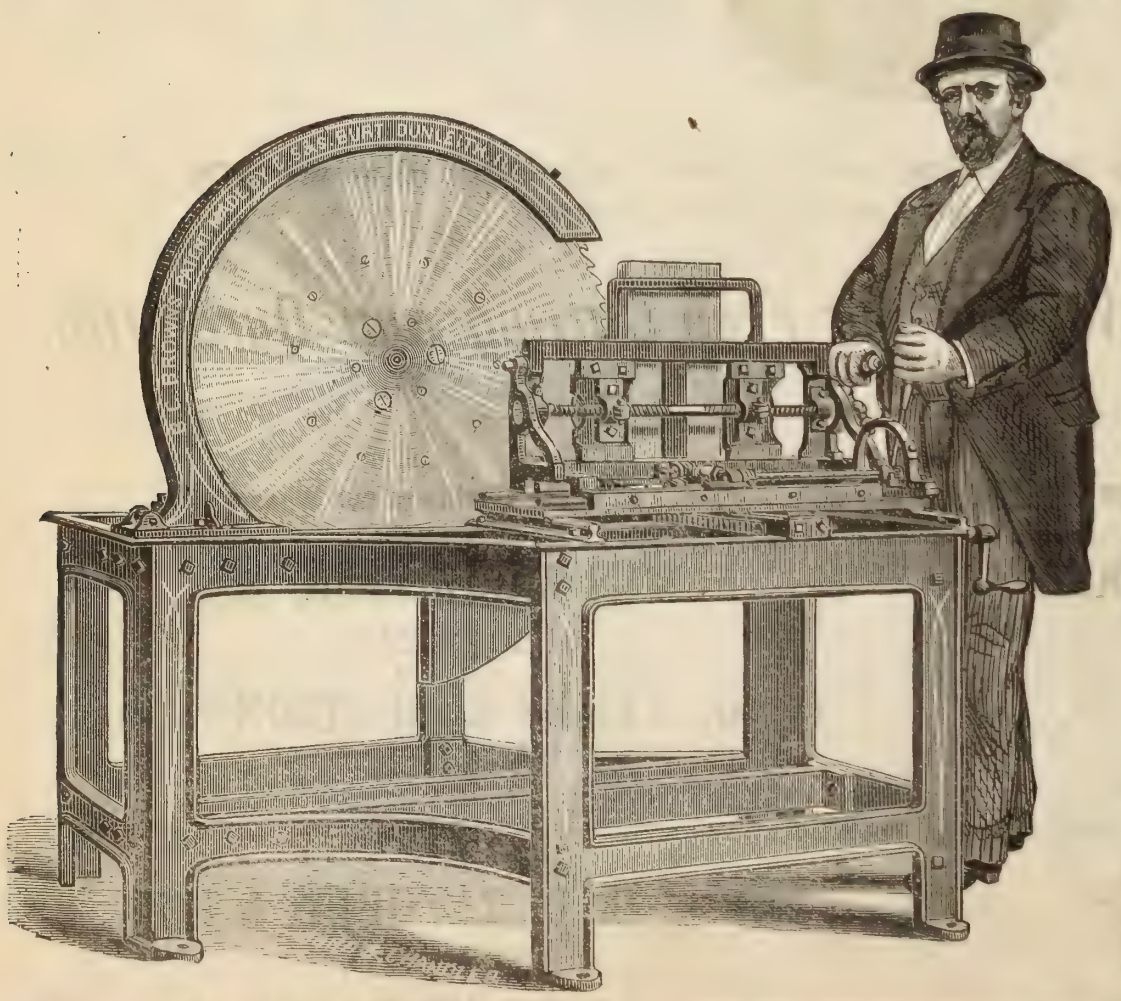

BY THE USE OF

Brown's Patent Shaft and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c., from spalts, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion; have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out: sixteen 16 ft. boards, or eighteen 12 ft. boards, have been cut by it in one minute. It is the established feed for steam mills; I make a specialty of its manufacture; will guarantee satisfaction.

Our Patent Twin or Span Circular,

with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab logs 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Trenton, and Georgian Bay Lumber Co's Mill, Waubaushene and Port Severn. ☞I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise; I keep it constantly on hand, ready for immediate shipment.

Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.

WILLIAM HAMILTON, Peterborough Foundry and Machine Works, PETERBOROUGH, Ont.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS' AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM

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PRUNING FOREST TREES.

At the recent Forest Congress at Montreal the following paper was read by Mr. John S. Hicks, of Roslyn, N. Y., entitled

"THE COMMERCIAL VALUE OF PRUNING."

I would call attention to pruning for the benefit of the lumber product of trees, not for beauty, only the increased value of the sawn lumber. The value of clear in comparison with knotty lumber is well known. The defects of loose knots and much of the rotten lumber is due to the want of pruning.

Trees when quite young have branches extending to the ground, as it grows these, if not pruned, will die and in time produce a black knot that will continue to extend through the tree as long as the branch is attached, causing the tree when sawn to produce lumber with black or loose knots.

Often when the tree has been standing a long time the branch will decay, this decay extending to the centre of the tree, causing it to be worthless while it looks sound on the outside, and its condition is only known when sawn, involving a loss of all expenses and costs.

Clear lumber of all kinds is only obtained on the outsides of the log. All logs having a center of knots, if this can be made small and the few knots kept sound, as they will be by being cut off when alive and quickly overgrown.

With the hickory and the oak there is still more difference, as the knotty lumber has no value over firewood, and as the large knotty oak and hickory logs are scarcely worth cutting and splitting small enough for firewood.

I have now in mind a hickory tree nearly two feet in diameter, that for the want of pruning was not worth the labour to split into firewood; had it been pruned early and with but a few hour's labour expended, it would have been easily worth $30 to $50.

White oak timber, if knotty, will so check and warp that it is worthless.

The chestnut invariably shows the decay of the dying branches in the centre of the log and rendering the timber of but little value.

In most if not all of our more older woodlands, trees are allowed to grow as nature starts them. The worthless ones are not cut out and replanted with those of value. It has been the thought of many that nature attends to all this, and the trees that are best suited to the soil will grow. This error is plainly shown by the fact that two locust trees are now growing at Roslyn, L. I., that originally were brought from Airginia by Capt. John Sands, of Sands Point, in 1785. From these two trees and another at Oyster Bay, L. I., have grown all the valuable locust timber on Long Island.

When we notice that the value of clear pine has nearly doubled in value in the past ten years, and is higher now than black walnut was then, and is still increasing in value each year, while the common or knotty pine is worth but a few dollars more now than then. Hard wood shows the same increase in value.

When we realize that the old growth of forests are melting away so fast, and that will not long have the old century growth of trees to cut clear lumber from the outsides, caring but little for the centre, even if it is knotty for a foot or more in diameter, it being of so little cost at the stump that it might make but little difference.

But when timber has been planted and each year of its growth matched, the value of pruning will at once be seen as an element of profit.

Forests showing a sound growth of smooth trees, no dead and decaying branches will at all times have a value thae will repay all the expenses of pruning and replacing trees of value for worthless ones.

The fact is we have never cultivated our woodlands, and do not now realize their value, or what would be their value if in proper condition. But we will soon learn. With clear pine selling at wholesale for $65 per thousand feet; black walnut, $100; oak, $65 to $85; hickory, $85 to $120.

We will then scarcely believe that we have devoted so much time to crops of a yearly growth, and done nothing for those that take a lifetime to harvest.

CEDAR FOR BLOCK PAVING.

Now that cedar is likely to come extensively into use for block paving, it is necessary to apply some test which will prevent bad or decaying cedar being used. The Corporation of Toronto, in its specifications for this kind of work, requires that none but live cedar be put in; but this condition is far from being adhered to in practice. There can be no doubt that this restriction is a proper one, and we fail to see on what authority corporation officials authorize a departure from it. It is clear that they have no authority to waive one of the essential conditions of a contract. Cedar dies from various causes; from an excess of moisture, from the ravages of worms, which get below the bark and which eat a slight distance into the *alburnum* or sap-wood; occasionally the roots rot, probably from being lifted up by the frost. No cedar which is cut after it has died is as good as one cut while living, and some are quite rotten when they die. Small cedars which die first at the root are almost invariably rotten by the time the foliage withers. Cedars killed by worms are in a state of decay when they die. Sometimes a tree will stand erect years after it is dead, and these years take so much out of the wear it had in it when it died, yet we see such cedar as this used in Toronto as short posts to support the planks that mark the line between the boulevards and the cedar block roadway. The intention of the corporation has been to reject them, and though the restriction is founded on good reasons, this kind of cedar is very much used for this purpose. It is useless to say that live cedar cannot be got; anyone can get it if he is willing to pay for it.

A distinction should be made between live cedar and green cedar; though the tree should be felled when it is alive, it ought to be allowed some time to dry before it is used. None, however, seems to have been made by the City Council of Toronto; perhaps because if we had to get dry cedar, cut when alive, we should have to postpone the making of some of our cedar roads. But the error is one which ought to be corrected when opportunity offers.

We are satisfied that the rejection of every kind of dead cedar rests on substantial grounds—not that some kinds of dead cedar have not considerable wear in them—and for some purposes they are useful; but if dead cedar were allowed to be used in making block pavements, we should bargain for rottenness and decay, and could not complain when we got them.

Of live cedar, that is best in which the *duramen* or heart-wood forms the greatest proportion of the whole, and the sap-wood the smallest part. The heart-wood is permeated by a secretionary matter of a resinous nature, insoluble in water, while the mucilaginous ingredient of the sap-wood is soluble in water. The general and well-known tendency of sap-woods to decay is not less in cedar than other kinds of wood. Round cedar posts decay on the outside, but in small posts the decay is greatest, because the thickness of the sap-wood relatively to the diameter of the trees is greater. The heart-wood of the cedar is peculiarly liable to decay, under some conditions of growth or age. When this decay manifests itself and proceeds far, the sap-wood is the best part of the tree. By the process of kyanizing, which consists of injecting some preservatlve substance, such as creasote, the sap-wood can be made as durable as the heartwood; but where this is not done, the less the proportion of sap-wood bears to the heart-wood the better. Very small blocks are almost certain to be, in this way, objectionable; and a good rule would be to establish a minimum size, below which no block should be used for paving.

The mechanical decay of cedar, which commences in the live tree, and is carried on by grubs or worms below the bark, probably ceases soon after the death of the tree; for, unlike the operations of the furniture beetle, the ravages of this grub are superficial, and can be traced in a kind of graving on the outside of the tree when the bark is taken off. But when mechanical decay ceases, natural decay, the work of low forms of parasitical vegetation, is very likely to commence, and this is more likely to happen in a tree which dies a natural death, than in one which is cut down in a healthy state.

The part of such block most liable to decay is the outside, which is also, when laid in a road-bed, liable to the greatest pressure when struck, say by the point of a horse's shoe at an unfavorable angle. The tendency of these two causes must be to make the blocks decay on the outside first. When the proportion of sap-wood is large, the chances of decay are increased from two causes instead of the one which exists where there is no striking or pressure to resist.

But surely cedar is not the only wood in which we ought to experiment in block-paving our streets. Several other kinds are used in England, and some not used there might be tried here.—*Monetary Times.*

FIRST CIRCULAR SAW IN AMERICA.

R. O. Hussey writes as follows to the *Builder and Woodworker*: 'I have long known that it was a very old invention, and have sought very diligently to learn who first used the saw in this country. Without presuming to certainly know about it, I will say that the first to use it of which I have any information was Constant Wyatt. In the early years of the present century Mr. Wyatt worked at cart and wagon making in the neighborhood which is now embraced in the town of Pawtucket, R. I. At the time I received the information he was still living, and I sought him and received from him in person this statement: 'About the year 1800 I heard by an Englishman that there was in England a round saw in use for sawing plank, and it seemed to me that such a saw would save much hard work. I went up to a shovel factory and got a plate that had not been bent to shape, and from it I cut out a saw and filed up the teeth as well as I could and set it to going in my shop. It was rather a rough affair but it saved me much labor. Afterwards I made a better one and used it several years, and when the war was over I sent and got one from England.'

"I had the above statement from Mr. Wyatt many years ago and as I have not been able to learn of any one in this country who used one before him I have believed him to be the first maker, user and importer also, of circular saws in America, and that to the bright town of Pawtucket belongs not only the credit of running the first cotton mill, but also that of the first circular saw."

Quebec.

It is reported that Richard White's white pine timber, about 52 feet average, 16½ inches girth, has been sold at 31½c. per foot, and from two to three drams of Muskoka waney board pine, 19½ inches, at 35½c. per foot.

THE *Northwestern Lumberman* says about 30 workmen were brought from Ottawa, Canada, by the American Lumber Company, the other day, to begin operations at Newberry, Mich. Another year the company expects to have about 1,000 men in its employ at Newberry and in the Ontonagon region.

CANADIAN LUMBER.

CHICAGO, Sept. 9.—The lumbermen had a hearing before the Tariff Commission to-day. The Saginaw men and others had urged a duty of two dollars a thousand feet of lumber. Mr. Dean, of Chicago, a wholesale and retail dealer, took an oppisite view. He could see no reason why a duty of two dollars a thousand feet should be paid on lumber from the neighbouring Dominion ; but he could see many reasons why there should be no such duty. The Saginaw men the other day had estimated their supply of lumber at only enough for ten years. If that were so, it was the part of prudence to draw from others sources. He himself was not in full sympathy with the idea that there was but ten years' supply of lumber on hand in Michigan, but still the supply was growing rapidly less. The "stumpage" men had formed combinations, and the effects was to "bull" the price of lumber, which had been advancing for the last two or three years out of proportion to former years. He had been in the business many years, and up to the time of the fire lumber had cost him an average of $14.46 per thousand. The year after the fire the rebate which was allowed on iron, glass, etc., not having extended to lumber, it cost him $16.80 per thousand, so that the lumbermen made a profit of over two dollars per thousand by the great fire. In 1873 it fell to $12.72, in 1875 to $11.78, and in 1876 to $9. It remained at about the same figure from 1877 to 1879, but in 1880 a little "boom" started, the stumpage being confined to a small number of owners, and the average cost of the lumber in that year was $11.62 ; in 1881, $13.92, and in 1882, so far, between $14 and $15. That was the direction which things had been taking in consequence of the manipulation of stumpage. He could see no earthly reason why the American lumber interest should have any protection. Corn, pork, and beans were what entered into the lumber business ; Illinois produced them. As to the difference in the cost of labour he had no faith in it. He did not see why a fool across the imaginary line would work for $15 a month when he could cross that line and get $20 a month. He believed that the labour in Canada was as well paid as in the United States. Besides, the Canadians had to pay at least $1 more a thousand for freight on lumber than the Michigan lumbermen. Another advantage which the Michigan men had was that they could utilize their slabs and sawdust. With these advantages on the side of the American lumberman he could not see why they should be further protected by a duty of $2 a thousand.

NEW YORK, Sept. 10.—To-day's *World* says : "The duty on Canadian lumber, as Mr. Dean, of Chicago, showed yesterday, is one of the greatest scandals of the whole tariff. The Michigan lumbermen had testified before the commission that the supply of Michigan lumber would be exhausted in ten years at the present rate of diminution, and they had at the time insisted that a duty should be retained for the purpose of restricting the importation of Canadian lumber and of confining American buyers to the rapidly dwindling American supply. A more greedy, selfish, and scandalous demand was never made. Europeans look with horror upon the recklessness with which we are using up our national inheritance, and wonder that there is not enough foresight in the country to adopt some measure for keeping a constant supply of forest timber. Our children will known what we have thrown away, and while the Canadian forests can yield us the product of all products that it is to our advantage to import as much of as we can, since many generations cannot reproduce the timber which one reckless generation can destroy, the men who profit for the time by this recklessness are allowed and encouraged to argue in behalf of a duty which insures that the denudation of our forests shall go on at a more breakneck pace than ever."

THE PROTECTION OF TIMBER LIMITS.

The following letter appeared in the Toronto *Globe* :—

SIR,—Among the practical results of the Forestry Congress has been the directing of public attention to the timber supply of the Dominion and the United States. We find from the official reports now being issued of Professor Sargeant, the United States special commissioner, that, practically, white pine can no longer be looked for in quantity except in five States, and in these he gives the following estimates of available standing timber, and the cut for 1881 :—

	Still standing. Feet.	*Cut for 1881.* Feet.
Maine	475,000,000	138,000,000
Pennsylvania	1,800,000,000	380,000,000
Wisconsin	41,000,000,000	2,100,000,000
Michigan	35,000,000,000	4,400,000,000
Minnesota	6,100,000,000	540,000,000
	84,375,000,000	7,558,000,000

In other words the results of his investigations show that, taking into account all white pine timber whether profitably accessible or not, there now remains less than twelve years' supply ; and what deductions follows from these facts ? It is not difficult to see that the demand instead of lessening will, with continuing prosperity, and enlarging population there, still further increase, and that very soon the Canadian source of supply must be looked to. We have been told by some lumbermen that there is still a fifty years' supply in Canada. That, however, does not take into consideration the certainty, ten or fifteen years hence, of this immense United States demand, which, added to that from Great Britain and South America and to our own local consumption, will soon tell on our forests. It is very doubtful if, in view of these facts, we have twenty-five to thirty years' supply. It may be said that the pine tree is constantly growing, but very few are aware that it takes between seventy-five and one hundred years for a pine to attain a merchantile size sufficiently large for square timber. But this is not all. The general opinion among lumbermen prevails that more pine has been burned by forest fires than has been cut by the lumberman's axe. These fires are the more serious in this respect that small as well as large trees are burned, and that the soil beneath them is largely ruined by the vegetable mould being as it were eaten away. The question as to what we are to do under the circumstances is very grave. The provinces of Ontario and Quebec at present derive a large annual revenue from timber lands, and therefore have an important interest in seeing that our forests are not exhausted, and that these sources of revenue are not gradually cut off. The Dominion at large, again, is interested in continuing in future years our export trade in timber and lumber, and so conserving our forests that the sources of supply will remain undiminished. If we further recall the facts that no industry in the Dominion requires as much private and banking capital, employs as many men and is as widely distributed, as an industry, over the whole Dominion as that of lumber and its products, we see forcibly how the question of the conservation of our forests is one which must interest every section of the country. How is this question, then, to be settled ?

The Forestry Congress discussed the subject of forest fires and made recommendations, some of which, I trust, will be taken up by Parliament. But has the Congress gone far enough ? Even if forest fires are entirely stopped, still the supply of white pine remaining is insufficient to carry us over very many years unless steps are taken to promote the growth of the younger trees. The true and most feasible plan would seem to be to strictly preserve all seedling pines from injury, to prevent the cutting down of any under about fifteen inches in diameter at the base, and to curtail the leases of limits to lumbermen to a fixed period of five or seven years, after which the limit should have a rest of twenty to twenty-five years. This rest would give an opportunity to the younger pines to attain a merchantable size, and if followed under a regular system over the whole country in which pine timber limits occur, could be arranged in such a way as to afford a continuous supply of lumber in the future and a perpetual source of revenue to the Governments of our different Provinces. The grave objections to the present systems are that they subject the public lands to unrestricted waste for just such length of time as the lumbermen find it profitable, without any regard to the future; and that they place the Governments in the position of owners desirous of making the largest possible immediate return, regardless of the impoverishment of their possessions in the near future. Now if the regulations for the prevention of forest fires be made more stringent and a system of police protection inaugurated with a view to the detection and heavy punishment of offenders, and if, following this, the forests are, under an organized plan, given periodical rests, there is no reason why the lumber trade should not continue in the far future, as it is now, a large and important industry.

Yours truly,

A. T. DRUMMOND.

Montreal, Sept. 2, 1882.

FOREST FIRES.

The Montreal *Herald*, of Aug. 23rd, in an article on the Forestry Congress then in session says :—"One topic broached on Monday, and judged of such commanding importance as to head the list of subjects to be taken up, namely, Forest Fires, was by general consent, held for yesterday, the members, doubtless, feeling that, in a matter of such magnitude, of such vital interest to the Republic and Dominion alike, and involving so many delicate questions, and such a variety of conflicting opinions, it would be well —not exactly to "sleep over it," but to discuss the matter conversationally before dealing with it formally. The wisdom of this postponement was fully proved by the tone of the debate when the topic was brought up yesterday. Members had evidently come prepared to discuss the whole question in a practical spirit, and it was simply astonishing to observe the concurrence of opinions as speaker after speaker unfolded his views. Some of the statistics offered will, we are sure, be startling to the general public. Those which show the enormous value of the forest's products, eclipsing that of every other industry, are second in startling interest to those representing the fearful waste which has been going on for years, and the means of checking which have yet to be devised. By a coincidence which is more than curious, for it is as nearly demonstrated as could be, those who took part in the debate one after another placed the value of woods destroyed by fire at ten times that of timber felled by the lumbermen. One gentleman, it is true, modestly alleged that for every tree cut another was burned, but this was generally put aside, as not even an approximation to the actual facts.

The causes of these fires were gone into to some extent, among those specified being the carelessness of hunters and tourists, the ignorance of new settlers, the recklessness of shantymen in some cases, and, though it is difficult to bring oneself to believe that such rascalities are frequent, the deliberate firing of the forest by lumberers' employes with a view to providing themselves with the chance of work in the prospect of slack times. The remedy the Congress evidently felt was harder to get at than to ascertain the causes of the mischief. One suggestion, the appointment of a forest constabulary, paid by the Government or by the Government and the lumbermen jointly, met with general favor, and unanimous approval was stamped on a resolution offered by the Hon. Mr. Joly, to the effect that it was the duty of the Congress to press on the governments the necessity of taking precautions for the prevention of forest fires. Among the many sagacious suggestions offered by the President, the Hon. Mr. Loring, United States Commissioner of Agriculture, there was the excellent one of appointing a mixed committee of Canadian and American delegates to make this resolution effective.

GOOD WORK.

The work of the American Forestry Congress recently held at Montreal, doubtless accomplished much good. This will eventually be realized, not so much in the direct benefits accruing from its deliberations as by the interest which it arouses and the attention it will call to matters of vital importance alike to Canada and this country. To the active lumberman whose energies are devoted to securing the most logs and making the most lumber that the character of the season and the extent of his resources will permit, the reading of essays on forestry ; how most effectually to conserve them ; the best methods of working timber lands in the interests of the holders, of the public, and of the revenue ; the duties of governments in regard to forestry ; how to promote the extension of timber bearing lands in districts where timber is scarce, and how best to introduce it into treeless regions of the west ; the protection of forests from fire ; forests in relation to the water supply ; utility of roadside planting, and the other kindred subjects which received the attention of this congress, may seem but visionary and impracticable, but there are important considerations involved in all these questions and it is only by agitation and persistent work that the worthy aims in view can be successfully brought about. An appreciation of the importance of these matters and the necessity of caring for the great interests involved can be secured only by forcing them before the people through such efforts as are being made by this congress.—*Lumberman's Gazette.*

SIBERIAN FORESTS.

Some examinations have recently been made by exploring parties, of the character of the immense forests of Siberia. The most important timber stretch begins a little south of Dudino, and still far north of the Arctic Circle, the pines become tall. Here is a veritable forest, the greatest the world has to show, extending with little interruption from the Ural to the sea of Ochotsk, or about 650 miles, and 4 times as much from east to west. This primeval forest of enormous extent is nearly untouched by the axe of the woodman or cultivator, but in many places devastated by great forest fires. The forests consist principally of cembro pine, valued for its seeds, enormous larches, the nearly awlshaped Siberian pine, the fir and scattered trees of the common pine. Most of these trees north of the Arctic Circle reach a large size, but are often far isolated from all others, gray and half dried up with age. The ground between the trees is covered with a labyrinth of fallen branches and stems which are frequently covered and almost concealed by luxuriant beds of mosses. The pines, therefore, lack the shaggy covering common in Sweden and the bark of the birches scattered through the pines is distinguished by an uncommon whiteness.

FIRE-PROOF JOISTS.

A Philadelphia paper notes the use of wood joists in the construction of a fire-proof building in that city, on Walnut street, above Fourth. It says that, strange as such a statement may appear, it is a matter of fact that many New England builders, contend that the wood joists, encased in plaster, are proof against any ordinary fire, and for many reasons are much preferred by them to the ordinary regulation fire proof joists. The joists are "stripped" on the outside, and over these strips irons are run, and on these the plaster is spread. The theory is that in an ordinary fire these joists thus treated will be fire-proof, and only when the fire has reached such a fury that the building must go anyway will they be affected. Here comes in one of the advantages claimed for them. When a building is being burned by a furious fire the iron joists expand and crush out the walls and do other damage. The wood joists would simply be burned up without injuring the walls at all.

AN Ottawa despatch says :—During the week ending the 2nd of September there passed Calumet slide 4,616 pieces of timber ; Madawaska 5,695 pieces of timber and 5,183 sawlogs. There left Ottawa on the 6th and 7th of September two rafts containing 3,661 pieces of white pine and 2,004 pieces of red pine.

BAXTER'S MANDRAKE BITTERS never fail to cure Costiveness and regulate the Bowels.

THERE is no more wholesome or delicious fruit on earth than the Wild Strawberry, and there is no more effectual remedy for Cholera, Dysentery, Cramps and other summer complaints for infants or adults, than Dr. Fowlers Extract of Wild Strawberry.

BAD BLOOD.—The blood is the true essence of vitality, without pure blood there can be no healthy action in the system. Boils, blotches, pimples and the various humors and blemishes of the skin are only symptomatic of bad blood —that needs purifying at its fountain head, to render its tributaries pure. Burdock Blood Bitters effectually clense the blood from all humors, obtains a healthy action of the liver, bowels, kidneys, skin etc., and strengthening while it regulates and purifies.

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First Prize, Industrial Exhibition.....Toronto, 1880
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WOOD IN PAPER.

An exchange complains of the use of wood pulp in paper-making and says that a reaction is now setting in, and that consumers are begining to protest against so much wood. This reminds us of an amusing incident which came to our knowledge. It seems that the proprietor of a prominent newspaper had a strong prejudice against wood pulp, and he was unaware of the fact that the manufacturers who supplied him with paper had gradually introduced the objectionable material into their prodnction until he was receiving a very considerable proportion of wood. There came a time, however, when the manufacturers found occasion to use more ragstock and less wood pulp. The result was that the newspaper man demanded to know why his paper had deteriorated in quality. The manufacturer, being assured that every lot previous to the last had been satisfactory, kept his own counsel, and the result was that afterwards the journal was printed on paper containing a goodly precentage of wood in its composition and that no dissatisfaction resulted.

The face is that a certain, and by no means small proportion, of wood in paper does not impair the value of the product, but gives it body and adapts it to receive the ink impression. Of course much depends on the way pulp is manufactured, and here a very marked advance has been made in recent years. Instead of chopping the wood into fine bits and destroying its fibre, the most approved processes now crush the wood in such a way as to preserve a strong fibre of sufficient length to felt well in the sheet. One of the most prominent dailies in the country, if not the most prominent, is printed on a paper composed of 75 per cent of poplar wood. We have seen paper containing 90 per cent of wood, which was by no means an inferior article, and we have seen the fly-leaves of costly books made from wood-paper, which the expert eye could not distinguish from rag-made material.

Among competent judges wood-pulp is not coming into ill-repute, but is growing in popularity; and it is well that this is so, for the ever increasing demand for paper has made a raw material cheaper than rags imperative. Every innovation on long established methods is viewed with apprehension by the conservative ones, and wood-pulp will naturally come in for its full share of abuse from those who know little of its true character and who are only too ready to attribute to it any defect in the product. Substitution is, nevertheless, the order of the day in manufactures.—*Lumberman's Gazette.*

The Endurance of Woods.

In tests made as to the durability of woods results have varied. Pieces of wood two and five-eights inches square, buried one inch in the ground decayed in the following order: Linn, American birch and aspen in three years; willow and horsechestnut in four years; maple, red beech and birch in five years; elm, ash, hornbeam, Lombardy poplar in seven years; rebina, oak, Scotch fir, Weymouth pine and silver fir decayed to a depth of a half inch in seven years; larch, common juniper, Virginian juniper and arbor-vitæ were uninjured at the expiration of seven years.—*Northwestern Lumberman.*

As a cure for all diseases of the Lungs Downs' Elixir has no equal.

The World's Iron Trade.

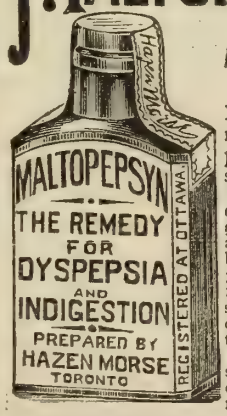
A critical estimate of the annual iron product of the world shows the yield to be close upon nineteen and a half million tons a year. Statistics for the more important countries are obtainable as late as 1881. For the others it is assumed that the yield has not fallen off since the latest figuries reported. Under "other countries," in the table below, are included Canada, Switzerland, and Mexico, each producing about 7,500 tons a year, and Norway, 4,000 tons a year.

	Year.	*Gross Tons.*
Great Britain	1881	8,377,364
United States	1881	4,144,254
Germany	1881	2,863,400
France	1881	1,866,438
Belgium	1881	622,288
Austro-Hungary	1880	448,685
Sweden	1880	399,628
Luxemburg	1881	289,212
Russia	1881	231,341
Italy	1876	76,000
Spain	1873	73,000
Turkey	—	40,000
Japan	1877	10,000
All other countries	—	46,000
Total		19,487,610

The first four countries produce 88·4 per cent of the world's iron supply; the first two 64·3 per cent; the first 43 per cent. The chief consumer is the United States, 29 per cent; next Great Britain, 23·6 per cent; these two using more than half of all.

A DRIVE of 9,000,000 feet of logs and 180,000 ties for the Northern Pacific railroad is about starting down the Yakima in Washington Territory. They were attached to satisfy a claim of $50,000 by the government for stumpage, the timber having been cut on government lands. At last accounts the railroad had rebonded the logs, but the ties remained in the hands of the Sheriff.

MALTOPEPSYN



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Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

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Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

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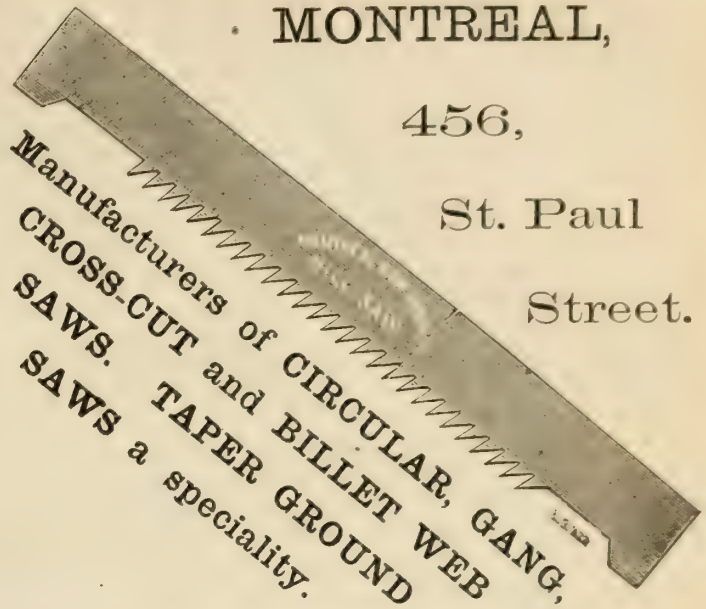

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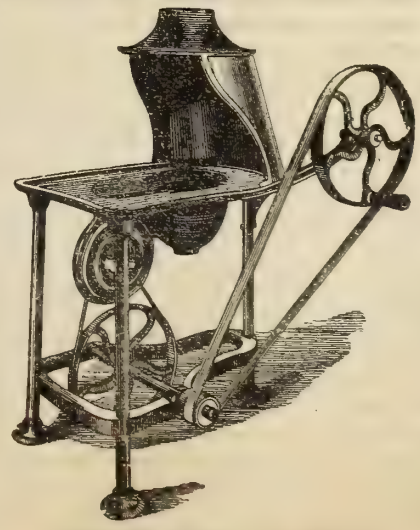

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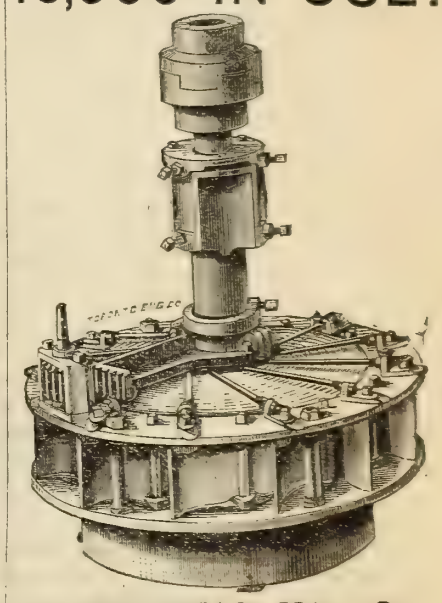

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The Stearn's Circular Saw Mills with Fractional Head Blocks and King of Dogs—this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill. Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Specialty.

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FORESTS SACRIFICED TO LEATHER.

One of the handsomest trees in California is generally known by the common name of chestnut oak. It is a tall, slim tree, having limbs like the chestnut tree; it is evergreen, and never grows in open grounds. Its habitat is nearly limited to that of the redwood, or more accurately to that of the madrono. It is the only oak in that vicinity which furnishes a bark suitable for tanning leather. At least, it is the on y oak bark that has ever been used in that state. Now, the leather business has been unusually good in that state for the two or three years last past. Over large districts this beautiful chestnut oak is slashed down for the bark. The trunk is peeled and then left to decay; great openings are made in the forests and the sun is let in, evaporating the moisture so rapidly that these trees do not propagate. The result will soon be that this immense waste will terminate with the destruction of this tree, and decay of the fallen timber.

What wi l the tanners do when the tree disappears, or is so remote and inaccessible that it cannot be reached? In the Eastern States hemlock is extensively used for tanning, but the latter is not found in California. For at least a quarter of a century experiments have been in progress to find some substitute for the tanning of leather. Various chemical processes have been introduced. But none of them have taken the place of bark, either because they were too expensive, or did not make a good quality of leather. There are many barks and many drugs which have astringent properties, but the discoverer has not yet hit upon the cheap and satisfactory process by which bark can be dismissed, and the chemical can be substituted. When all the chestnut oak of the Pacific coast has disappeared, as it will within a dozen years at the present rate of destruction, what are the tanners going to do? Will they find a new and satisfactory process? Why not find it now, and so let a few of the trees stand over for the benefit of another generation?

The price of tan bark in the coast counties has advanced more than fifty per cent in the last three or four years. It is still advancing. The bark men now go twenty or thirty miles from the coast, or from the nearest railroad. They climb almost inaccessible mountains, strip the bark and draw it out on sleds, or chute it down the mountains in troughs. With the greater labour of getting it, of course, the price must advance. But when there is no more, then will necessity become the mother of invention? Surely, a satisfactory preparation for tanning leather ought not to be beyond chemical discovery. That it has not yet been reached is evident from the fact that tanners in California are paying the largest price for bark ever paid, and that they have not yet adopted any one of the chemical processes which from time to time have been introduced. The chemist is now wanted at the front who can show tanners how to make good leather without the use of tan-bark.—*The Lumber World.*

FOREST PRESERVATION.

At the recent meeting of the American Forestry Congress at Montreal, the following paper entitled "The Preservation of Forests from Wanton Destruction, and Tree planting," was read by Mr. John Dougall, editor of the New York *Witness*:—

The greater part of the North American continent was covered with forests when first invaded by Europeans. These forests had stood for many ages undisturbed, except by the slow decay of one generation of trees, if we may so speak, and the slow growth of another. These operations had been going on simultaneously since the creation, or since the last great convulsion of nature, and the annual falling of leaves and the gradual decay of branches and trunks had covered the earth with a vegetable mould of considerable depth.

A UNIVERSAL MINE OF WEALTH.

This mould, possessing all the elements of fertility, was an immense treasure, everywhere abounding, and tempting the settler to clear away the trees and reap the benefit of the virgin soil. When trees were cut down, a crop, which had probably required several hundred years to grow was reaped in a few weeks or years, thereby leaving the earth bare, and the vegetable mould was used up in a few years by continued cropping in wheat, corn and potatoes. The writer knew an excellent bush lot which produced great crops at first to be reduced in less than ten years to mere rocks and stones. And this process of exhausting the vegetable soil went on everywhere as fast as settlements advanced. Of course where the subsoil was good and turned up in part to mix with the vegetable mould fertility continued much longer, but, in course of time, all, except prairie lands, were reduced so much in fertility as to require the application of fertilizers at great expense. Had the soil at first required these fertilizers the progress of settlement would have been exceedingly slow or more probably there would have been no progress at all.

WAR AGAINST TREES AND ITS EFFECTS.

The labor of cutting down great trees, cutting them into short logs, and piling them up in log heaps to burn, was, however, so great, that a feeling of dislike to trees as the settlers' natural enemy became general, and the vengeance against them so great that in extensive regions the land was completely bared, and thus rendered not only unsightly but unsheltered. Bleak winds had full play and droughts parched the earth. What was even worse, the clearing on the hills and mountains by the settlers, the lumbermen and forest fires left the snow of winter exposed to the spring sun; and the sudden melting and running off of this accumulation of frozen water made dangerous floods in the streams in early summer and left those streams nearly dry in the hot season.

CALLING A HALT.

At length the evil results of indiscriminate cutting down of trees began to be preceived. The improvidence of previous generations was lamented, and efforts to conserve what forests were left and to plant trees gradually became popular. The first class of efforts was directed to preserving a few acres of the original forest in each farm where that still could be done, and merely thinning the trees for firewood, fencing, etc., thus leaving the smaller trees room to grow more rapidly. The grove thus preserved became one of the most necessary and valuable portions of the farm, and that without any labor of ploughing, sowing or cultivating. It also afforded a delightful shade in hot weather for man and beast.

FORESTS IN THE TERRITORIES.

The preservation of the vast forests in the Territories belonging to the nation attracted attention also, and laws were enacted to protect them from wanton waste. Secretary of the Interior Schurz distinguished himself for endeavouring to enforce these laws, which was very difficult of execution on account of the opportunities lumbermen have in an almost uninhabited region for cutting trees on Government land, and the frequency of forest fires kindled by careless Indians, hunters and trappers, lumbermen and settlers. These fires often do more damage to forests in a few days than lumbermen could do in as many years, and how to prevent them is yet an unsolved problem.

FORESTRY LAWS.

The only remedy and that only a partial one that can be suggested, for the wanton destruction of forests is a national system of Forestry laws somewhat similar to those of France, Germany, Austria, Norway, and other European countries, which prohibit under severe penalties the injury or destruction of trees by unauthorized persons; and also the kindling of fires, or even smoking in the woods. A forest police was created to see to the execution of these laws, and at the same time providing for the utilizing of forests by gradual thinning out and selling the largest trees, so as to leave more room for the smaller ones. In this way the public forests are an annual source of revenue, and after centuries of such management they are in as good condition as they were at first.

JUDICIOUS THINNING.

In passing through Plattsburgh, N. Y., once the writer saw the Saranac thickly covered with sawed lumber, and he asked an old gentleman if that river was not yet lumbered out. The reply was "I have known it for sixty years, and the quantity of lumber coming down has been pretty much the same all the time. There is as much now as there was sixty years ago." This shows the result of a judicious system of thinning forests.

A COMMISSIONER OF WOODS AND FORESTS.

If the United States, and each State had a department of woods and forests with a suitable head and the necessary subordinates, much could be done, not only for the preservation of forests belonging to the public, but to persuade settlers to leave a suitable portion of their farms in wood; and to counsel from time to time in public documents, not only care in husbanding present forests, but some general system of tree planting by States, corporations, and individuals, so as to provide a supply of timber for the future.

TREE PLANTING.

The second branch of this great subject is tree planting, and here credit must be given to the U. S. Government for its encouragement of this necessary work in the prairies. The law giving 160 acres to anyone who will plant and maintain for a few years 40 acres of trees, has had a great effect already in providing for a future supply of timber in the prairie States, those groves will also break the terrible prairie blizzards, and, probably, to some extent, attract rain-clouds to mitigate prairie droughts. A fine spirit of tree planting has also been manifested in many cities and villages; and "Arbor Day," or a day set apart in spring for tree planting, has become, in some parts of the country, an institution for the purpose of beautifying streets and public and private grounds.

PLANTING TREES ON PUBLIC ROAD-SIDES.

The public roads should be lined on both sides with trees, which, when grown, would do something towards sheltering and beatifying the country everywhere; but along the railroads there should be something more than isolated trees. There should be a rather broad belt on the windy side, thickly planted with the various kinds of trees needed for repairing the roads. This belt would shelter the railway from storms, catch and retain the winter's snows which give us so much trouble, and, before many years, supply much useful timber when the supply from other sources might be exhausted.

TREE-PLANTING ON FARMS.

Every farm should have a belt of timber planted all along its windy side, this belt, not less than fifty feet wide, should be planted thickly with the various kinds of trees that grow best and fastest in the neighbourhood, the thinning of which for useful purposes would soon be valuable, whilst the shelter it would give from prevailing winds would be invaluable. All swamps not covered with trees should be planted with red and white cedar and tamarac, all of which grow best in damp ground, and produce most excellent timber for various purposes. The leaves also of these trees would absorb the unwholesome air which swamps generate.

STONY GROUND.

There is on many farms more or less of ground so rocky that it will not repay the expense of cultivation, and all such spots should be planted with trees. These may be got out of the woods or farm nurseries; or what would be easier, cheaper and probably more effectual, the seeds of various kinds of trees could be sown, imitating as nearly as possible the natural processes which have produced all the forests of the country. The seeds of different trees should be gathered in the woods just at the time that they fall naturally, and they should be immediately planted in little shallow holes among the stones, and covered with a little earth. There the rains of autumn, the snows of winter, and the sunshine of spring would bring up quite a crop of young trees, which should be fenced in from cattle and left to themselves. They would require no labor after the first sawing and fencing except subsequent thinning out from year to year of those that were too crowded or most valuable for economic purposes. If hickory nuts, black walnuts, butternuts, chestnuts, and the seeds of sugar maples, pines and spruces were any of them or all of them sown every here and there over the place intended for a grove the most valuable kinds and those that thrive best could be ultimately left to become great trees. After ten years the annual thinnings of this grove for wood, fencing, hop poles, railroad ties, etc., would probably make it as valuable a part of the farm as any other, and when the black walnut and butternut trees become large enough to be sold to cabinet-makers the value of the grove would be very great. The present race of farmers may say they would not live to see the trees become fit for the cabinet makers, but none the less would the growth of that grove increase the value of the farm every year and that whether the owner sold it or left it to his children.

A FORESTRY COMMISSION.

What is very much needed as a preliminary to the covering of a considerable portion of the land with these groves is the advice of scientists and experts as to the kind of trees suitable to different soils, the rapidity of their growth and the relative value of their wood. This information could be collected and scattered by a judicious commissioner of woods and forests in each state, just as the fish commissioners now give information about fishes. To plant or sow millions of trees is just as necessary as to hatch and distribute millions of food fishes.

THE DOMINION.

With respect to the Dominion of Canada there is great need for tree planting in the fertile valley of the St. Lawrence for a considerable distance around Montreal, and still more need in the prairies of the North-West. In the latter region of vast capabilities, to which much attention is now turned, a system of granting land on condition of planting trees might be most advantageously introduced now, as every year will render such an arrangement more difficult. The other provinces of the Dominion are still well supplied with timber, and the system of selling "timber limits" to lumbermen is conservative of the forests, but there is need for great precaution against forest fires or wateful uses of valuable timber. A capable commissioner of woods and forests for the Dominion would therefore prove a very valuable functionary, if he were not only an expert, but an enthusiast in Forestry, as otherwise his appointment would merely add another salary to the expenses of Government.

THE GREAT NORTHERN FOREST.

The Toronto *Globe* says:—The great forest which bounds Hudson Bay on the east and extends up the interior of East Main and Labrador to Ungava Bay and Hudson Straits, six hundred miles north of Moose Factory, attains its greatest characteristic development just south of James' Bay, which lies nearly midway between the northern and southern limits of the peculiar trees which compose the great northern woods. Some trees, such as the Banksian pine and the spruce, which along their southern limits in Central Ontario are almost valueless commercially, here become giants of the forest, and are valuable for timber. The list of trees which flourish at James' Bay or in its drainage basin includes, according to Professor Bell, the spruce (two feet or more in diameter), the tamarac, balsam poplar (luxuriant), Banksian pine, silver fir, arbor vitæ, elm, white pine, and red pine, and of lesser importance the poplar, mountain ash, and mountain maple. As James' Bay is as near to Liverpool as is Quebec, the future of the district as a lumbering country looks hopeful.

STEAM OR SAIL.

The London *Timber Trades Journal* says:—With the absorption of the Atlantic wood carrying trade by steamships we shall get the colonial goods here at a freight charge that will bring them much nearer to those from the Baltic. The fact that large steamers can partly load up with other commodities in addition to deals much readier at the North American ports than they can in the Baltic will influence the rates in that direction considerably. The great drawback to low quality deals from the westward has been the heavy freight charge on them, but with this reduced to a trifle more than from the north of Europe ports a great impetus will be given to the consumption, and we shall see fresh sources of supply developing in every direction. Places that are now too remote to cull from, owing to the heavy cost of carriage, will be brought within paying distance of Quebec and the other ports when the Atlantic freights are some 40 per cent. less than now rule, which will probably be the case before many seasons pass over our heads.

To the Canadian ports, with few exceptions, sailing ships offer no inducements to charterers that can entitle them to a preference over steamers. The small outports here as a rule do not import pine, as the Atlantic voyage necessitates large vessels being employed in the trade, and to the large central ports here it is not so material the size of the cargo that is imported, but with steam vessels of great size bringing part cargoes all objections to their employment are removed, and it can be only a question of time as to the total extinction of the old class of vessels in the pine and spruce trades.

The *Carmona* arrived this week from Quebec, though over 2,000 tons, discharged into the Surrey Commercial Dock under 700 standards of pine deals (of course being loaded up with other goods), and is, we believe, the largest ship, steam or sail, that has ever entered the docks mentioned. We alluded to the fact last year, when she brought then as now a portion of her cargo of deals, which she delivered into the Victoria Docks, whence they were barged into the Surrey Commercial, that the latter were capable of accommodating vessels of even larger tonnage than the *Carmona*. We understand the Dock Superintendent guaranteed 23ft. of water on the ledge at the main entrance at Rotherhithe. What a vista opens up for the timber trade of the metropolis in the contemplation of the timber fleet being composed of vessels of this large class!

STEAMERS IN THE WOOD TRADE.

A correspondent of the London *Timber Trades Journal* says:—

SIR,—I think it just as well to make answer to the letter contributed last week by "W.V.," although all the arguments he urges have been replied to.

Reference is made to the relative carrying powers of steamers and sailing vessels. Doubtless sailing vessels carry as much in proportion to their bulk as do steamers, but they are not capable of carrying anything like so much in proportion to the cost of working a voyage. The matter of bulk then is one of no consequence.

There can be no doubt but that timber importing as it is now carried on at the small outports is practically a doomed branch of commerce. So long as the existing sailing vessels will swim it may be possible to charter them to bring over wood, but, as wood freights are sure to cheapen very much, it will be almost impossible to work sailing vessels at steamer freights without loss. The foreign shipowner has had to submit to the inevitable whenever steam has entered into competition, and the wood-carrying trade will afford no exception to this rule. The force of the competition which steamers will offer in the near future will lie in the low freight that will be accepted. Another important feature is that foreign shippers will prefer to load steamers. It is better that merchants at the outports should speedily recognize the altered state of affairs, and be prepared to gradually conform their business to the changed conditions, rather than to persevere in what can only be a losing game.—Yours,

SHIPOWNER.

RAFTS AT QUEBEC.

The Quebec *Chronicle* give the following list of rafts, etc., arrived:—

Aug 25—Richard Nagle, white and red pine, Cap Rouge.

Aug 26—J. R. Booth, white and red pine, Woodfield Harbour.

Bell & Hickey, white and red pine, St. Lawrence Docks.

Aug 28—Sundry lots, deals, &c., South Quebec.

Aug 29—J. L. Lyon and Son, pine and oak, Indian cove east.

Aug—Ross & Co., white pine, &c., Cap Rouge.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

MR. R. W. CARMICHAEL, Chemist and Druggist of Belleville, under date of May 31st 1882. Writes as follows:—"Your Burdock Blood Bitters have a steady sale, are patronized by the best families here and surrounding country, and all attest to its virtues with unqualified satisfaction."

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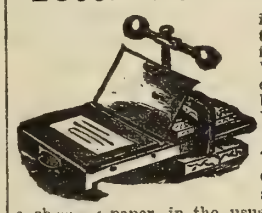

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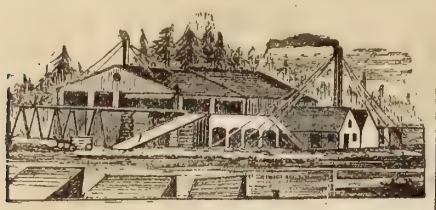

THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

Terms of Subscription:

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. SEPT. 15, 1882.

WASHINGTON territory boasts the widest gauge railway yet reported. It is an eight-foot gauge logging road running back from Skagit river. The rails are wood, eight by eight inches. The cars are large and are carried on twelve wheels of nine inches face with double flanges.

A LARGE quantity of first quality of pine timber is in the railroad yard at Chateaugay, N. Y., awaiting shipment to England. It was cut during last winter by Canadian parties at the head of Chateaugay lakes, floated down to the forge, and thence hauled by teams to the station. Some of the sticks are two feet square and 20 feet long.

THE *Timber Trades Journal* says:—The market for spruce deals on the west coast continues to steadily advance, and every probability of a further rise is presented to us. Doubtless many of the large buyers inland hold considerable stocks of spruce, but the feeling abroad is that the supply is likely to be limited, and consumers are naturally enough anxious to secure themselves against any such contingency as running short of the stuff.

The *Northwestern Lumberman* says:—Up in British Columbia, contiguous to the Puget Sound lumber district, where the enormous firs grow plentifully, there are some pretty tall tree cutting in more senses than one, as well as on the Sound. Recently Angon C. Fraser took a contract for getting out $12,000 worth of spars. It took just 37 days by the telephone to get out these spars, and during the same period 1,200,000 feet of logs was gotten out.

The *Northwestern Lumberman* says:—There are now five logging camps on the Snoqualmie, in Washington Territory, putting in an average 60,000 feet of logs daily. The camps are operated mainly by settlers who are unable to work full crews. The water is low, and nothing in the way of driving can be done till there is a rise. The drives on the Yakima have been clean and successful, and are finished for the season. The railroad operators have taken 7,000,000 feet of logs to Ainsworth, W. T.

LEATHEM & SMITH, the Sturgeon Bay, Wis., lumbermen have a new and important enterprise under way. They will erect a mill shortly on the west shore of Green Bay, which will cut cedar shingles exclusively. The intention is to have the mill in operation this fall, and keep up work all winter. There is an abundance of cedar in the vicinity. It is intended to turn out 20,000,000 shingles the coming winter.

W. T. PRICE and N. C. Foster, are building a railroad from Fairfield, Wis., which penetrates east for 15 miles into the extensive tracts of pine land owned by them. It will be of the usual gauge and run a locomotive and cars direct from the stump to the mill, a plan much in vogue in Michigan, but little adopted in Wisconsin. The northern lumbermen will no doubt continue to get down to business in this fashion.

THE FORESTRY CONGRESS.

To the Editor of the Canada Lumberman.

DEAR SIR,—Your paper of Sept. 1st has come to hand with the report of the Forestry Congress at Montreal. Allow me to suggest, and it may be gracefully added in another issue, that the success of this very successful meeting in the interests of forestry were mainly due to the untiring efforts and thoughtful provisions that had been made in advance by Mr. Wm. Little, of Montreal, who had notified all he could reach, had arranged with the transportation lines for concessions, had secured elegant rooms and accommodations for the meetings, and, in a word, had devoted himself wholly to the cause of the *Forestry Congress* ever since the adjournment of the Cincinnati meeting.

The selection of such a man to be our corresponding secretary, with the honest and earnest vote of thanks which was heartily passed, are but an expression of the feeling of obligation under which the society universally feels to our worthy corresponding secretary, Mr. W. Little. So says A MEMBER.

OUR WANING FORESTS.

Under this heading a Connecticut correspondent of the *American Agriculturist* takes a more hopeful view of the subject of the demolition of our forest than other writers on the subject. He claims that only one-fifth of the area of a country need be left in wood to secure its highest productiveness in farm crops, and says that this point has not yet been reached in some parts of the seaboard States, yet in other parts it has been somewhat passed, and there is a deficiency of wood for fuel and timber. "The alarmists overlook the most important fact that very much of the timber land that is cleared in the older States is very soon renewed by natural agencies. There is a regular system of growth and clearing, and timber and fuel are as much reliable money crops as corn and potatoes. On fair, average, soil, a forest will renew itself once in 25 years. It would probably pay better to stand 30 or 40 years, but it is available, and can be turned into ready money every twenty-fifth year. A farmer with twenty-five acres of forest can clear an acre every year, with no dominution of woodland. In the rural districts of Connecticut, with which we have been familar for the last fifty years, there has been no waning of forests. Ship-timber, near seaports, has grown scarce and high, but the price of wood for fuel is no higher, and in some markets is even cheaper than 50 years ago. The census shows that in the exclusively agricultural towns there has been no increase of population, and in some of them a decrease during the last 40 or 50 years, so that there is no more demand for fuel and timber to-day than there was in the days of our grandfathers. Wood for fuel, except in the shape of kindling and charcoal, has gone out of use in our cities and villages on the seaboard and along the line of our railroads. Farmers, not a few, within four or five miles of these villages, are beginning to use coal, and the base-burner, once in the parlour or sitting room, soon drives out the wood fires and stoves from the rest of the house. Coal is found to be far cheaper, and a cleaner and more convenient fuel than wood, even for those who own wood lots. Kerosene is also becoming available for heating, and we see no propect in the future that wood for fuel will ever be any more in demand than it is to-day. It is doubtful if it ever will be dearer for lumber. Iron is taking its place in ships, bridges, machines, houses, and public buildings, and the demand for iron, stone, and brick, as the most desirable materials for buildings, is likely to increase as the country increases in wealth. In some of these rural districts there is more danger of a relapse into barbarism, than of exterminating our forests for the the advance of high farming and civilization. In 75 of our farming towns there was a decrease of 12,000 in population during the last decade, which means an increase of woodland."

This writer lives in the rural districts of Connecticut, where decreasing population and convenience of coal and lumber markets render a resort to the forests unnecessary, except to gather switches for the common school-room and bean poles for the garden.—*Lumberman's Gazette.*

THE STUMPAGE TAX IN NEW BRUNSWICK.

Mr David Wark, in a letter to the St. John's *Globe* complains that, in the future sale of timber berths, in New Brunswick, the $8 mileage now deducted from the stumpage tax will not be allowed. He gives a historical sketch of the growth of the stumpage tax, with a view of showing the New Brunswick lumbermen are now subjected to greater burdens than ever before. He points out that the export duty on lumber was substituted for stumpage in 1843.

It was fixed at 1s. per M. on sawn lumber and 1s. per ton on pine timber; 10s. mileage was not so much intended as a source of revenue as to give the operators a legal control over the ground, but the late Mr. Rankine from Northumberland, who, from his great experience, was better able to judge than any other member of the House, estimated that it would yield from 2½d. to 3d. per M., supposing the average timber lands would yield 40 M. or 50 M. per mile annually. Thus the only burthen imposed on the trade, was not more than 1s. 3d., say 25 cents per M. Many years after the mileage was raised to $4, making the whole impost thirty cents.

"When the Washington Treaty rendered the repeal of the export duty necessary, the Dominion made us a permanent grant in lieu of what we collected on the U. S. timber, of $150,000 annually. It must be admitted that this was ample for the sacrifice we made, and left no deficiency to be provided for, even by continuing the 30 cents impost, yet the government at once imposed 60 cents stumpage, which they soon after advanced to 80 cents, and now they give notice that the $8 mileage heretofore credited in the stumpage will no longer be refunded. Therefore, if Mr. Rankin's estimate made forty years ago that, that 10s. mileage was equal to 5 cents per M., there can be little doubt that the $8 now to be imposed will be equal to 20 cents per M., raising the actual cost to $1. Parties well acquainted with the subject have estimated that the changes in the Dominion tariffs have added 60 cents to the cost of getting out 1 M. of lumber. This added to the local tax make $1.60, a remarkable contrast to the 25 cents of former years."

Mr. Wark admits that lumbermen are willing to pay even a higher stumpage on private land; but then he contends that no comparison can be drawn between the partially exhausted crown lands and such lands as are in possession of the N. B. Railway. If New Brunswick lumbermen are subject to higher imposts than the lumbermen of other provinces, the disadvantage they labor under must work seriously against their success.—*Monetary Times.*

HEMLOCK LUMBER.

The *Northwestern Lumberman* says:—Hemlock is not coming to the fore as fast as it should, considering the high price of pine. Hemlock lumber would materially lessen the expense of building if it could be obtained, and would be used. There exists some silly objections to its use, which should be speedily overcome. If the builders in the west were fully acquainted with the merits of hemlock for dimension, siding and fencing, there would be a demand for it that would bring it into the market. Not long ago it would have been thought a reckless business enterprise to stock a yard in Chicago with yellow pine exclusively, but now that it is done, the demand is such that at all times it has not been easy to meet it. There is no reason why a yard that sold nothing but hemlock should not thrive equally well if the proprietors of it used the necessary push. Hemlock stumpage is so cheap that the lumber could be sold for several dollars less per thous and than pine, and for many uses the preference should be for the former. No better wood could be used for corn cribs, the construction of which consumes an immense amount of lumber every year. Carpenters in the west will be the first ones to raise serious objections to the use of hemlock, on account of the unpleasantness handling it, but their ilk have used it in the east for many years, and still survive. The men who do the building are the ones who should have their say about it, as it is their money that settles the bills, and their interests all around that are at stake. In the meantime, men with business foresight are buying large quantities of hemlock, and will hold it until the demand comes, which is certain to, sooner or later.

LOOTING LOGS.

The Muskegon, Mich., Booming Company's patrol force of about a dozen men, whose business it has been to scour the lake shores for a distance of 35 or 40 miles, beaching Muskegon logs that had gone astray, often finding large numbers scattered about at different places, finally struck a batch of Muskegon marked logs in the Grand Haven harbour, where they had got mixed with the other logs, and many of them had no doubt been investigated by Grand Haven saws. The company and the interested Muskegon log owners amassed their forces, boarded some tugs and set off for Grand Haven. There they found 78,000 feet of lumber cross-piled and 368 logs, all of which was claimed as the property of the Muskegon parties. The expedition very coolly went to work to load the lumber on the propeller McDonald, when the sheriff put in an appearance and demanded, officially, that the lumber loading should cease. On being questioned he admitted he had no writs or documents, but said a man named Willard had charge of the logs which have the Muskegon marks, and that Sid. Clark had charge of the lumber, which had been sawn by the thousand at Bowers' mill. The campaign was executed on a recent Sunday, and the Sheriff could not well obtain the papers he wanted. However, on having the facts in the case presented, he concluded not to interfere. The property, to the amount of about $1,000, was secured and safely taken to Muskegon. It was to have been sold, and the avails divided *pro rata* among the Muskegon log owners of last season, and the looters will probably suffer. —*Northwestern Lumberman.*

COTTONWOOD FOR PULP.

The *Southern Lumberman* advocates the erection of numerous pulp-mills along the Mississippi and other streams, to utilize the immense quantity of cottonwood which grows in the South, and can be had in many instances almost for the asking. This is upon the ground that it is the cheapest and best material for the purpose, and quite likely to take the place of poplar and the loblolly pine of North Carolina in this industry. The cottonwood, it is thought, could be prepared similarly to poplar. It has a stronger, tougher fiber, is a whiter wood, and is therefore better suited for paper making. It cheapness, and the enormous quantities which are found along the banks of navigable streams, particularly the Mississippi river, would cause it soon to displace every other material used for this purpose. It is instanced that the cost of transporting the poplar used to the more northern points where the mills are located is considerable, yet the profit of paper making is large. Delaware mills go clear to North Carolina for wood, whereas if the operations were in the midst of the timber, the cost of manufacture would undergo an important reduction. According to the figures given, woods which could be had for a dollar per cord, when transported to the northern mills reaches the sum of $10 per cord. There is market enough in the South to support such enterprises, while the cheap cost of manufacture and the reduction

in the transportation of raw material, would place the southern mills in lively competition with northern industry.

NEW SECOND FOREST GROWTH.

A correspondent of the *Northwestern Lumberman* from Pottsdam, N. Y., says:—Before leaving this section I must say a word about its forests—not the standing timber in the mountainous region to the southward, from whence the mills derive their supplies, but the forests that remained after the farms had been partially cleared. Twenty years ago there was plenty of the primeval growth still standing, and the maples that were "tapped" for sugar making were mostly old trees. Now the original hardwood growth has nearly disappeared, but the forest is still there, a second growth having taken the place of the first. In one "sugar-bush" that I remember as a boy, the ancient maples have either fallen before the winds or been cut down; but where once stood one tree that used to furnish sap, three have taken its place. The same number of acres of forests are there, but the old woods that I knew as a boy have disappeared. The sizeable maples that have taken the place of the old ones were mere "staddles" 20 and 30 years ago. This shows that the fear that the country will eventually be denuded of forests is largely groundless. I should say that northern New York is better supplied with hardwood timber to-day than it was 20 years since. The trees, it is true, are smaller, but they are much more numerous, and are growing rapidly. This is a country natural to timber, and is better adapted to forest culture than any I know of, for the reason that it is fit for nothing else, while trees flourish on the rocky soil finely.

In speaking of the second forest growth of this section it must not be inferred that pine, cedar and hemlock are as abundant as they once were. These merchantable woods have nearly all disappeared before the consumer's demand. There is still considerable cedar and tamarack in the swamps, but the majority of it has been cut off. A thick second growth has succeeded, which is being used for hop poles to a large extent. Getting out hop poles is a leading industry here in the winter. They sell for five and six cents each, and, on some farms, furnish a considerable revenue. Cedar and tamarack grow rapidly in the swamps, and even at this early day, two and three crops have been cut off the same land. Cedar is, of course, preferred, but tamarack is much used.

Judging from the fact that there are apparently as many acres covered with forest in northern New York as there were two decades since, backed by the fact that farmers manifest a disposition to preserve their trees, especially maple, on account of the sugar making industry, I can see no mission here for the American Forestry Congress. The population need no education to make them understand the importance of the forests. They have common sense enough to see that they need fuel, timber and sugar trees, and to know the profit of them. Actuated by this knowledge they are preserving their woods, and doubtless will for generations to come. Fifty years from now there will be more forest in New York than there is now. Dr. Loring stated at the forestry congress, at Montreal, that there is now a greater area of forest in Massachusetts than existed 30 years ago. The same may doubtless be said of this state 30 years hence.

A Saint at the Zoo.

Capt. Harry Piper, Alderman and Superintendent of the Zoological Garden, lately communicated the following facts to a reporter of one of Toronto's most influential papers; "Some time ago we purchased from the collection of animals at Central Park, New York, a monstrous Russian bear, which we have named "Peter the Great," on account of his tremendous size. Not long after "Peter" arrived we found that he was suffering from the rheumatism, and in a pretty bad state. Pete was not the only one in the "Zoo" which had a touch of that delicious torture; the lion likewise had it, and in fact I was just being cured of a bad case of the rheumatism, myself, by the use of St. Jacobs Oil, the Great German Remedy. I found St. Jacobs Oil an excellent remedy, for it cured me in a short while, and my case was a very aggravated one. I argued that if it cured men it must be good for animals as well.

The Stranger in London.

That the great City will ere long be hardly recognisable by its former denizens, all the world has heard. The visitor passing up the Thames now finds his eye gratified by the many handsome edifices recently erected. As he reaches the famous Victoria Embankment, there rises over him on the right hand the new *Times* office, and on the left hand the new tower-crowned works of Messrs. James Epps & Co., both phases of Italian architecture. It may be said that these two buildings are types of the far reaching business energy of the nineteenth century, for it has resulted from such means that these two establishments have brought themselves to the fore, and that the annual issue of each has come to be estimated by millions. During the last year, the number of copies of the *Times* issued is estimated at 16,276,000, while the number of packets of Epps' Cocoa sent of in the same period is computed at 14,749,695. The latter is a large total, when it is borne in mind that in 1830 the consumption of Cocoa throughout the whole kingdom was but 425,382 lbs., there then existing no preparation of it such as this, which by the simple addition of boiling water would yield a palatable drink. Truly time may be said to work many changes.

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Represented by the Undersigned, offers

FOR SALE
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600 Square Miles Virgin Forest of Pine, comprising 13 Licenses, nearly all Front Limits, on the main stream of the River Ottawa itself, on reasonable terms.

The Proprietors will sell either the whole, or, if preferred, a part interest to Capitalists who will furnish the requisite means to work this Valuable Property on an extensive scale.

The exterision of the Canadian Pacific Railway westward towards Manitoba, the establishment of steamboats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subsiding streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

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Made simply with boiling water or milk. Sold in tins and packets only (½-lb. and lb.) by Grocers labelled thus:

JAMES EPPS & Co., Homœopathic Chemists,
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WILLIAM CAMPBELL
(Late CAMPBELL & FOWLER.)
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This Compound will save its Cost many times in one year by saving fuel.

It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

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1L1y

THE CENSUS AND THE TIMBER SUPPLY.

To the Editor of the Northwestern Lumberman:

It is becoming evident to the most obtuse understanding that the lumber market of the future is to be one of comparatively high values as compared with the past, and that the immediate season is to be one of great activity and small profit to the Chicago dealer.

Regarding the former proposition, two important and perfectly true statements may be urged. First, the recuperation of the timber supply from new and unknown sources is out of the question while the timber stock of the country is rapidly being depleted. Second, the population of the country is rapidly augmenting, and the demand for lumber will, in the very nature of things, increase with the growth of the population. Here, then, is the statement in a nutshell. With an increasing demand, there is a rapidly decreasing stock with which to supply it. The census of 1870, showing a population of 35,000,000, gave a consumption of lumber amounting to 12,000,000,000 feet for the year 1869-70. The figures of population were undoubtedly correct; those of lumber consumption were but approximate, as no careful endeavor was at that time made to get at the bottom facts. The census of 1880 showing a population of 55,000,000 in the country, and a more careful estimate of lumber consumption, withal taking cognizance of no production in communities of less than 8,000 population, gives a total for the census year of 1879-80 of 18,000,000,000 feet of lumber, and other forest products summing up fully 2,000,000,000 feet additional. But when it is remembered that the lumber producing localities are in but a comparatively few instances included in the populous centres, no candid and well informed mind will assert that an addition of 50 per cent. to the figures is inordinate or unjustifiable. Assuming, therefore, 30,000,000,000 feet as the yearly production of lumber to satisfy the wants and demands of 55,000,000 people, we find an average consumption of 545½ feet per capita of population per year. This, while including the consumption of all kinds of timber, is, in a great measure, of white pine, and it is safe at least to say that 300 feet per capita will not more than represent the demand for this variety of timber. The average increase in population for the ten years from 1870 to 1880 was about 5 per cent. of the census of 1870, and the same average maintained for the coming decade will add 2,750,000 souls per year to the consuming element of the nation, requiring, at the average of 300 feet per capita, a production of 17,250,000,000 feet for 1881; 18,075,000,000 for 1882; 18,900,000,000 for 1883; 19,725,000,000 for 1884, and with a population of 68,500,000 in 1885, a requirement for 20,550,000,000 feet of pine lumber; or continuing the ratio to 1890 upon the same basis, we shall find a population at that time of 82,250,000 souls, requiring for that year no less than 24,675,000,000 feet of pine lumber, while the total demands of the decade will have aggregated no less than 210,000,000,000 feet. Where is this vast production to come from?

The census reports assure us that the total supply of the three chief white pine producing states aggregate but 81,000,000,000 feet, which if the figures be doubled, will still fall short of the demands of the decade by 43,000,000,000 feet, or more than the needful supply for the two years 1889-90. That the population to consume will decrease, no man in his senses will dare to assert; that it will cease to consume, as long as pine can be obtained, is an equally preposterous proposition. That white pine will in a measure be supplemented by the consumption of northern hemlock and southern pine may with safety be asserted, but a resort to substitutes neither increases the reserve of white pine or renders its value any less. We can therefore come to but one conclusion, that the market value of the white pine of the North must inevitably advance with its destruction, and with the figures before us, who shall doubt that much higher prices than now prevail are inevitable from a mere commercial standpoint of supply and demand. If the figures are reliable white pine lumber at present prices is the cheapest commodity in general use. If the figures of available white pine be raised from the estimate of 81,000,000,000 feet to quadruple that amount, or 320,000,000,000 feet, a proportionate increase of population would demand the whole of it in less than 16 years. We are too prone to forget with what rapidity this country is growing, and as well how limited is the area of white pine production. There is no timber which can fill its place with equal benefit or equal advantage when it is gone.

In our calculation we have made no note of the Canadian resources, or of the Canadian population. It is safe to say that the Canadians cannot spare enough to the United States to any more than offset the demands of her people upon United States forests, and we may therefore offset the one item against the other. It were well for those who express the belief that lumber is now held at figures above its actual value to weigh well the statements herein contained, and after making all the allowances which the most exacting critic can demand, to give careful heed to the results which shall be deduced from his researches.

Chicago, August 15, 1882. TAURUS.

FOREST TREES IN THE WABASH VALLEY.

In an interesting paper published in the "Proceedings of the National Museum," Mr. Robert Ridgway gives the result of long and careful observations made by himself and other naturalists upon the forest growth of Southern Indiana and Illinios. This region is of special interest, because here many of the peculiarly Southern trees, like the pecan, the water locust, the overcup oak, and the bald cypress, reach their Northern limits, and because this forest is hardly surpassed by any other in the number of species of which it is composed, and the magnificent development attained by many individuals. Nowhere in the whole of Eastern America have as many large specimens of as many species been recorded as Mr. Ridgway finds in the lower Wabash Valley. Nearly all of our largest and most valuable broad-leafed trees are here found associated together; and in a single square mile of woods seventy-five species of trees, nearly all of the first class, were detected by him, or nearly as many as grow on the whole European continent. By actual measurement, thirty-four species are found to occasionally exceed 100 feet in height, while seventeen others, although not measured, are believed to attain a height of at least 100 feet. The tallest specimen measured, a tulip-tree, was 190 feet in height, and individuals of ten other species, exceed 150 feet.

Mr. Ridgway calls attention to the fact that the numerous small prairies which were common in the Wabash Basin at the time of its first settlement have become transformed into wood land, and that, owing to this gradual change of prairie to forest, the actual area of forest in Wabash and the adjoining counties in Illinois is greater than fifty years ago. Extensive woods of oak and hickory more than eighty feet high, and with trunks nearly two feet through, are now growing on what was open prairie within the memory of some of the present owners of the land. "This is interesting as a slight indication of the solution of the mystery which involves the origin of the prairies; while the rapidity with which these new woods have sprung up shows that the reproduction of our failing forests can be accomplished in a shorter time than is generally supposed, if proper consideration and attention can only be given to the subject."—*Boston Journal of Chemistry.*

A MAGNIFICENT PRIZE.

In an article on the recent Forestry Congress the Toronto *Globe* says:—The question of the supply of white pine was one upon which a good deal of information was given. The standing pine under license in Ontario and Quebec is estimated to be sufficient for 50 years at the present rate of consumption. The quantity on land not under license is unknown, and opinions differ as to whether the quantity is greater or less than that on land already under license. In the United States the supply of pine is given by the census at seven years in Michigan, ten years in Minnesota, twenty years in Wisconsin, and sixteen pears in Maine. Large quantities of white and yellow pine exist in the South, and the method of logging by railways, now in use in Michigan, will render this southern pine easily accessible. But what we in Canada are concerned with is the fact that the Michigan and Minnesota pine is almost gone. It is true that the census figures are laughed at by lumbermen of those States, but it is no very difficult task to find a probable motive for their unwillingness to admit the imminence of the exhaustion of their pine forests. If they did admit as much, their case for protection against Canadian lumbermen would be gone. The American people would at once see that there is no particular object in their paying taxes in order to hasten the exhaustion of American forests and to husband the supply of Canadian pine. At the same time it must be remembered that statistics about the exhaustion of Michigan and Minnesota forests, similar to those given by the census, have been circulated any time during these last twenty years, and yet the yearly supply increases. That the pine in Michigan and Minnesota is disappearing goes without saying, and no effort whatever is made to foster a new growth. Come soon or late the day must arrive when the supply from these two States—our principal competitors in the West—will begin to decrease. All the more reason why, by guarding our forests against waste, we put ourselves in position to make the best use of our opportunities when at length our chance comes. If there is any truth whatever in American census figures, it is certain that, before ten years are up, the Chicago market will lose two-thirds of the supplies it receives from the two States named. As the Chicago market absorbs an amount of lumber equal to three times the cut of the whole of Canada, it will be seen that the prize certain some day to fall into our hands is a magnificent one. In view of these facts it will be seen how important it is that the lessons of the Forestry Congress concerning the preservation of pine timber should be applied.

INDIANA WALNUT IN 1834.

In the course of a recent conversation concerning Indiana timber in general and walnut in particular, with one of our pioneer settlers who came to this country in 1834, the old gentleman remarked:—"The walnut timber used to be a great deal of bother to us in those days. In clearing our lands we usually felled the trees, then rolled them into log-heaps and burned them. Walnut was the meanest wood of all, as it was almost impossible to burn it. I knew a neighbor who spent the best part of some three weeks trying to reduce an immense walnut tree to ashes. Some years later there was a saw mill erected a few miles away, and the owner bought a great deal of timber, some of which he sawed up, but most of it he shipped in the log to Cincinnati. I had sold him considerable timber, when one day he came to me and asked what I would take for a large walnut tree that had fallen in a swamp a year or two before. I told him he might have it for nothing if he would take it out of the way. He told me afterwards that he made quite a little sum out of it, but had I that tree now I could sell it for $400. Many and many a fine walnut tree did we cut for a 'coon. We had no particular use for walnut then. It was in the way, and we took the quickest and best methods to get rid of it. Sometimes we made rails of it, but it was frequently so curled and twisted that it was impossible to split it. We would probably have ridiculed the idea then that these curled and twisted logs might some day have made us wealthy, or that a big walnut knot would ever have any value."—*Wood Worker.*

SENSIBLE FORESTRY TALK.

A Michigan journal takes occasion to discuss the forestry question as follows:—While there is much said and written in regard to forest tree cultivation, very little attention is paid to the preservation of native forests. In the timbered sections we have been too busy trying to get rid of the timbor to think of any measure of preservation. Yet in some sections that were formerly timbered, there is now felt to be a scarcity of timber, particularly of that kind which is useful in manufactures. The only remedy mentioned is the planting of forest trees for this purpose. But this is a work that we are hardly prepared for in this state, and it is probable that only necessity will compel artificial planting. The time seems too long to wait for an investment of this kind to begin to pay, and there are very few who will undertake the work. At least very little has been done in this line. At the agricultural college an experimental *arboretum* of four acres has been growing a few years; and a farmer in Monroe county has this year set out 1,500 black walnut trees with a view to grow them for timber. Would it not be well to study more closely the possibility of improving the timber lands that still remain. The woods still standing contain a vast amount of material which is susceptible of development in far less time than would be required for the planting and growth of new forests, the neglect of which furnishes a striking proof of the general ignorance of forest culture. The timber is ruthlessly cut from many places that are nearly useless for cultivation after, and would be worth far more for growing timber than for any other purpose, more beautiful to the eye and more profitable. In many instances the native woods have been so much neglected or so injured as to be past redemption, yet there are still large areas of forest and smaller groves and wood-lots now yielding no revenue which might be developed into timber forests of very great value and at the same time yield an annual crop of fire-wood in the process. Cut out the dead and least valued timber for fire-wood, preserve the small growing trees that are of the best varieties for timber, mingled with a great number that are worthless or only fit for fuel. In many cases they have been neglected and cannot be improved, but in most cases intelligent work in thinning and pruning will be followed by profitable results.—*Northwestern Lumberman.*

ANCIENT OAKS.

Among the ancient oaks of England few are most interesting than the gigantic ruin now standing in an arable field on the banks of the Severn, near Shrewsbury. It is the sole remaining tree of those vast forests which gave Shrewsbury its Saxon name of Schobbesburgh. The Saxon seized this part of she country A. D. 577, when they burnt the Roman city of Uriconium, where Wroxeter now stands, four miles from the village of Cressage; and underneath this now decrepid dotard it is said that the earliest Christian missionaries of those times—and possibly St. Chad himself—preached to the heathen before churches had been built. The Cressage Oak—called by the Saxons Criste-ache (Christ's Oak)—is probably not less than fourteen centuries old. The circumference of the trunk was about thirty feet, measured fairly at a height of five feet from the ground; but only about one half of the shell of the hollow trunk now remains. It still bears fifteen living branches, each 15 feet or sixteen feet in length. A young oak grows from the centre of the hollow. The noted oaks of England, thanks to those who have preserved them, thanks to the universal veneration for timber, and to a stirring and lengthened history, are innumerable. Windsor Forest is particularly rich in historic oaks, and Sherwood Forest, though disafforested, still contains some memorial timber, like Needwood, once a crown forest, now a fine estate of well farmed land. Dryden's,

> "Three centuries he grows and three he stays,
> Supreme in state, and in three more decays."

is a poetical statement, and some of the dates on trees cut down in Sherwood Forest, and marked 600 years before, in the time of King John, prove that it is an under-estimate. The great Winfarthing Oak, in Norfolk, was called the "Old Oak" in the time of the Conquerer, and has been supposed to have attained the age of 1,500 years. The King Oak in Windsor Forest is upward of 1,000 years old.

ROUGH JUSTICE.

Many logs have been stolen from the Muskegon booming company. Logs escape from the booms, and float into the lake; and a man was detected regularly employing a steam tug to gather them up and tow them to Grand Haven, where he had them sawed up as his own before the booming company's tug got around. The other day the booming company loaded a tug with a gang of men, chartered a barge for Chicago, and went to Grand Haven and loaded the barge with sawed lumber bearing their marks before the Sheriff of Ottawa could get out a warrant, and sent out the barge with 78,000 feet. This makes things nearer even, and if the man who had the sawing done goes to law he will be arrested for stealing the logs.

Chips.

THE new handle factory at Chattanooga, Tenn., started up Aug. 7. About forty hands are employed, and the capacity will be from two hundred and fifty to three hundred dozen handles daily.

LOGS and planks split or crack at the ends for the reason that the exposed surface dries faster than the inside. Where a saturation of muriatic acid and lime is applied to the ends in a thin coat, the chloride of calcium formed attracts moisture and prevents splitting.

A REPRESENTATIVE of H. K. Porter & Co., Pittsburg, Pa., was in Menominee, recently, for the purpose of selling a logging locomotive to the "windfall" syndicate that is pondering on the project of building a logging road to the down timber. The agent looked over the ground with the possible object of inducing his company to put in a road, if the operators don't do it themselves.

REPORTS from Eau Claire make it absolutely certain that nearly one hundred million feet of logs are hung up on the South Fork of the Flambeau and Jump rivers, seventy-five million on the former and about twenty-two millions on the latter. Some of the Eau Claire mills are already shut down on account of the scarcity of logs, and mill men generally are quite despondent over the prospect.

The Quebec press state that a number of Americans have been in the city for some days past engaging men for lumbering operations in Michigan, and offering very advantageous terms which are not complied with. The unfortunate Canucks once in the interior of the State, being unable to return to Canada for the want of funds, are therefore compelled to remain there at wages much below those they earn in Canada.

FORESTRY is taking hold of the thinkers in the New Northwest. Witness the following from a Dakota paper: "All trees set out by our farmers seem to be doing well. When each tree claim has a fine grove upon it, and the homes of the settlers are surrounded by shade trees, as they soon will be, the appearance of our prairie country will be changed greatly, and for the better. The presence of the thrifty young trees and large timber in the gulches along the river banks, where the prairie fires cannot reach them, is evidence that the climate and soil both are favourable to tree culture here. No farmer should neglect to plant seeds and set out young trees or cuttings in abundance. No crop will bring larger returns.

THE Tonawanda *Herald* says: "This season will foot up the heaviest receipts of lumber ever known in the annals of Tonawanda's business career. A prominent dealer, well posted, predicts that it will reach fully 500,000,000 feet, which is at least fifty millions more than any previous year. This result doesn't look as if we were retrograding any in reputation or otherwise. The increase of new dockage this year is a sure indication that even more will be needed in the near future. The extension of the Erie track along the river road will cause every foot of the water front in that vicinity to be eventually docked. The contemplated track to reach the south side river front will also materially increase facilities. Tonawanda has really only commenced its great career as a lumber depot."

VANNOY and Co. are running three steam saw mills and a shingle and planing mill, at Beaver canyon, Utah. They get out 30,000 feet of lumber a day, mostly railroad bridge timbers. Besides the mills of Vannoy and Co., W. N. Thomas has two, and two more are run by Stoddard and Sons, the combined capacity of the mills of the place being 80,000 feet daily. Vannoy and Co. have 1,000,000 feet of lumber on hand and the rest combined another 1,000,000 feet, all awaiting shipment, being detained on account of the cars of the Utah and Northern Railroad being mostly engaged on the Oregon Short Line construction. Vannoy and Co. are also conducting a very thrifty mercantile business. The settlement is prosperous, there being between 300 and 400 men employed in the lumber and tie business within a radius of ten miles.

THE British American Lumber Company is soon to put up a new mill at the head of Bay de Noque, Mich.

THE will of the late Jesse Hoyt, of New York, lumberman and capitalist, bequeaths to the city of Saginaw, Mich., four lots on which to erect a public library, $50,000 to erect the building, and $50,000 to endow the same; and also some property on Washington avenue for use as a public park.

The London *Timber Trades Journal* says:—We hear that orders for a considerable quantity of timber have already been issued by the Government for Egypt, and contracts entered into for the supply of the same by a London firm; this, coupled with other operations that are now taking place in the market, ought to impart fresh vigour to trade, and we shall not be surprised to see a favourable change shortly.

The *Lumberman's Gazette* says:—The Roscommon lumber company are building twelve miles of logging railroad and will put 40,000,000 feet of logs into Houghton lake to be run to Muskegon. They are already at work in the woods. R. E. Cade & Son have just started in for an operation in the vicinity of Otsego lake, proposing to skid 6,000,000 feet of logs before snow flies. T. J. Miller proposes to put in 40,000,000 feet of timber in the upper peninsula for Alger, Smith & Co., and has already started in to make his camps, etc.

Water Elm.

An important use for water elm has presented itself in the making of sewing machine tables, the American Sewing Machine Company using 30,000 feet per month in this way. The elm is laid one layer on another to the required thickness and then veneered with walnut. The process does not diminish the expense, but is rendered feasible by the scarcity of Illinois and Indiana walnut, which is hard to obtain, while that from Missouri and other southern states warps so badly that its use has been abandoned. Water elm has in the past been a much despised wood, being thought almost worthless, except for use in making baskets or in some other trivial way, and not worth the cutting, but it appears to have a value, after all.

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Market Reports.

TORONTO.

From our own Correspondent.

September 9.—There is still little worthy of record in connection with the local trade here since last writing you, and retailers with whom I have conversed say they have never experienced as dull times as the present, however, there is one good feature worthy of note in this connection, and that is prices hold up, whereas in the period of depression, formerly experienced, prices went away down to zero, this goes to show that our home market has but little to do with ruling prices, it is the foreign market that we mainly look to, and although American buyers are shy at present and are evidently holding back somewhat in the hopes of a break in prices, the holders of stocks feel confident that the close of the shipping season will find them with no surplus stocks to winter over, and the fact that so many dealers from the American side are feeling around is fair evidence that the eastern markets are not overstocked at the present time, and my firm impression is that holders of stocks need not be under any apprehension as to the ultimate result of this seasons business. Small as the demand is for dimension stuff it is difficult to obtain bills, and for such stuff cut to order prices rule high. Considerable lumber is passing over the docks, in fact quite an improvement over that of four weeks ago. and considerable good lumber is now coming forward.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	17 00
" " " 28 ft	18 00
" " " 30 ft	20 00
" " " 32 ft	21 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	35 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	27 00@30 00
Three uppers, Am. inspection	35 00@40 00

B. M.

1½-inch flooring, dressed	32 00
1¼ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	14 00
XXX sawn shingles, ₱ M	3 00
XX sawn shingles	2 00
Sawn Lath	2 25

MONTREAL.

From our own Correspondent.

SEPTEMBER 9.—General business continues very good here and prices, though unchanged, are firm and well maintained. In Ottawa manufacturers of lumber are working day and night, and find a ready market for all they can turn out as the American demand is very good just now. Freights for local and American traffic remain very firm. The receipts of lumber here up to this date are believed to be considerably larger than for the same period of 1881; and foreign shipments are also larger. We continue to quote yard prices as follows:—

Pine, 1st quality, ₱ M	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M	14 00@16 00
Pine, 4th quality deals, ₱ M	11 00@12 00
Pine, mill culls, ₱ M	10 00@12 00
Spruce, ₱ M	10 00@13 00
Hemlock, ₱ M	9 00@10 00
Ash, run of log culls out, ₱ M	20 00@25 00
Bass, " " ₱ M	17 00@20 00
Oak, ₱ M	40 00@50 00
Birch, ₱ M	20 00@25 00
Hard Maple, ₱ M	25 00@30 00
Lath, ₱ M	1 80@ 1 40
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 00@ 0 00

SHIPMENTS.

The shipments from this port since the 25th ult., have been as follows:—To Liverpool, 38,976 pcs deals and deal ends; To London, 8,475 pcs spruce deals; to Buenos Ayres 1,505,489 feet lumber; to Montevideo 1.901,626 feet lumber. The total shipments to South America from the opening of navigation to this date amount to 11,568,157 feet, against 9,645,373 feet, being an increase of 1,922,784 feet. There has been very little doing in freights.

CORDWOOD.

There has been a better demand for cordwood and it is likely to improve; the weather has got suddenly cold, and the stock in the yards is not large, many dealers having put off buying in hopes of lower prices, but there is no appearance of any change, as the quantity coming in still continues light. We still quote ex cars and on the wharf.

Long Maple	$7 00
Short "	6 50
Long Birch	6 50
Short "	6 00
Long Beech	6 00
Short "	5 50
Tamarack	4 50@5 00

QUEBEC.

The *Chronicle* of September says:—There is not much animation in the market this week, though more timber has changed hands than during the previous ones.

Oak has been sold in considerable quantity at about 44 to 46½ cents, while for choice wood 50 cents is about the current rate.

Some elm has, we understand, changed hands at prices which have not transpired.

In white pine some four or five rafts have been sold. One good lot of fifty feet average, 16½ inch girth, with some waney board of 19 inches at 31 cents. A choice raft 46 feet, with waney board at 29 cents. And two rafts of about 37 and 45 feet, at 18½ to 20 cents. We also learn that some choice waney, St Lawrence wood, 19 to 19½ inch. changed hands at 35 cents.

In other woods there is little doing.

ALBANY.

Quotations at the yards are as follows:—

Pine, clear, ₱ M	$57 00@64 00
Pine, fourths	57 00@59 00
Pine, selects	52 00@54 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 40@00 44
Pine, 10-in. plank, culls, each	00 20@00 22
Pine boards, 10-in	00 26@00 32
Pine, 10-in. boards, culls	00 20@00 21
Pine, 10-in. boards, 16 ft., ₱ M	30 00@33 00
Pine, 12-in. boards, 16 ft	30 00@33 00
Pine, 12-in. boards, 13 ft	27 00@29 00
Pine, 1¼ in. siding, select	45 00@47 00
Pine, 1¼-in. siding, common	19 00@21 00
Pine, 1-in. siding, select	45 00@47 00
Pine, inch siding, common	18 00@20 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ₱ M	40 00@43 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@85 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	40 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	22 00@25 00
Hickory, ₱ M	40 00@40 00
Maple, Canada, ₱ M	28 00@30 00
Maple, American, per M	26 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 60
" cedar, mixed	0 00@ 3 50
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ₱ M	0 00@ 1 75
Lath, spruce, "	0 00@ 2 00
Lath, pine, "	0 00@ 2 25

BOSTON.

The *Journal of Commerce* of September 9th says:—The demand is very good, and rather improves as the season advances. There is a firm tone to the general market, and if there is any change, it is in the direction of higher prices. Stocks all around seem to be in a very encouraging shape, and the prospect is for a good steady fall trade.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@36 00

BUFFALO.

We quote cargo lots:—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

CHICAGO.

Sept. 9.—The *Northwestern Lumberman* says:—Nothing very marked has transpired in the general lumber trade of the country since our last issue At all the principal points, east and west, a steady demand is recorded, with generally firm prices. In New York and Philadelphia the tendency is to increased firmness, and in some instances a slight advance. Dealers at the east are stocking up more liberally than they were, the advance at Chicago and elsewhere having the effect to discourage the hope hitherto entertained that prices would go lower. Latterly quite a number of buyers from the eastern points have been in Canada, and not content with the figures given by the Toronto magnates, they have gone up to the mills. There they have generally found that the stocks were controlled at the lake ports, having been pre-engaged, as is the custom to a great extent, in Canada. The stiffness of tone still maintained at Saginaw, added to the solid condition of things in Canada, has covinced eastern buyers that the day of concession has been deferred for an indefinite time. For this reason the general movement of lumber is thought to have improved a little. Still, dealers are moving cautiously, no rush prevailing. Mill men at the east and in Canada seem well satisfied with the condition of things. They say that while the demand has not been quite equal to their expectations in the spring, it has been steady and in fair volume, so that about all they have had to offer has been taken at good prices. Trade, the country over, has been healthy all the season—not so overwhelming as to induce inordinate speculation, but real and strong, the mill product being wanted for actual consumption.

CARGO QUOTATIONS.

Short dimension, green	$11 25@11 50
Long dimension	13 00@14 00
Boards and strips, No. 2 stock	13 00@15 00
No. 1 stock	16 00@20 00
No. 1 log run, culls out	17 00@22 00
"A"	2 80@ 3 00
Clear	3 20@ 3 25
Lath	0 00@ 2 25

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending September 7, as reported by the Lumberman's Exchange:

RECEIPTS.

	Lumber.	*Shingles.*
1882	62,022,000	23,634,000
1881	57,715,000	17,435,000

FROM JANUARY 1 TO SEPTEMBER 7 INCLUSIVE.

RECEIPTS.

	Lumber.	*Shingles.*
1882	1,310,557,000	539,230,000
1881	1,204,154,000	529,738,000
Inc	106,403,000	9,497,000

LAKE RECEIPTS TO SEPT. 6.

1882	1,137,097,000	498,201,000

STOCK ON HAND AUG. 1.

	1882.	1881.	1880.
Lumber	511,903,574	422,404,156	412,841,089
Shingles	244,221,650	184,168,000	164,004,000
Lath	39,859,837	36,346,046	46,549,316
Pickets	1,717,165	2,777,053	1,232,459
Cedar posts	298,253	255,656	154,690

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

OSWEGO, N.Y.

Three uppers	$43 00@45 00
Pickings	33 00@35 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	12 00@15 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@38 00
1½ inch	35 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1¼ inch mill run	14 00@20 00
" " " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 00@ 4 35
XXX, 18 inch, cedar	3 75@ 3 75
Lath	1 80@ 1 90

GLASGOW.

The *Timber Trades Journal* of Aug. 26th says:—The public sales of American timber held during the week have been giving indications of a rather improved demand. The sale at Greenock on the 17th inst. was partly without reserve and attracted a good company. The wood, which was of a varied discription, was disposed of at the rates noted in the appended report.

The sales held here on the 23rd inst. were well attended. The bulk of the deals disposed of consisted of Miramichi, N. B., and Quebec spruce, prices offered for the Quebec pine deals not being up to brokers' limits. Prices realized appear to be about what they have reached at public sale for some time past for a similar class of wood. After the sale of deals there were disposed of various lots of walnut, &c. As the day was very fine, a large proportion of the company remained, and the brokers (Messrs. Edmiston & Mitchells) experienced very fair competition for the wood offered, results undernoted.

AUCTION SALES.

On the 17th inst., at Greenock, Messrs. Edminson & Mitchells, brokers:—

Quebec yellow pine timber—
60 c. ft. av. per log 1s. 10d. per c. ft.

Do. 3rd yellow pine deals—
10 to 16 ft. 8/14×3 1s. 1½d. "

The following were sold without reserve, deliverable in Glasgow:—

Quebec yellow pine timber—
80 c. ft. av. per log (60 logs) 1s. 5d. per c. ft.

Deliverable in Greenock:—

Do yellow pine timber—		
80 c. ft. av. per log	(86 logs)	1s. 4d. "
29 "	(20 ")	1s. 8d. "
21 "	(20 ")	1s. 6d. "
40 "	(4 ")	1s. 11d. "
Do. waney boardwood—		
142 c. ft. (4 logs)		2s. 3d. "
Do. damaged yellow pine—		
279 c. ft. (12 logs)		1s. 5½d. "
Do. red pine timber—		
372 c. ft. (20 logs)		1s. 3d. "
Do. oak timber—		
283 c. ft. (6 logs)		2s. 5d. "
40 " (1 ")		2s 8d. "
20 " (5 planks)		1s. 6½d. "
Do elm timber—		
413 c. ft. (20 logs)		1s 3d. "
46 " (3 ")		1s. "
Teak timber—		
589 c. ft. (13 logs)		4s. 2d. "
170 " (3 ")		5s. 1d. & 5s. 2d. "
117 " (3 ")		3s. 2d. (damaged) "
Hewn pitch pine—		
3,204 c. ft. (40 logs)		1s. 3½d "
107 " (2 ")		1s. 4d.
Sawn pitch pine—		
128 c. ft. (9 logs)		11d. "
Hewn and sawn pitch pine—		"
77 c. ft. (2 logs)		1s. 2½d. "
Damaged pitch pine—		
95 c. ft. (4 logs)		11d. "
Quebec 1st spruce deals—		
12 to 14 ft.	9×3	1s. 0½d. & 1s. 1d "
12 ft.	7/9×3	11½d. & 11¾d. "
10 to 13 ft.	9/16×3	11½d. "
8 " 14 "	7/9×3	10½d. "
Do. 3rd pine deals—		
11 ft.	11×3	11½d. "
7 to 16 ft.	7/15×3	11½d.
Damaged pine and spruce deals—		
1 lot		₱½d. "

LIVERPOOL.

The *Timber Trades Journal* of Aug. 26th says:—There has again been a steady and progressive business done during the week, and, although buyers are loth to pay the advanced prices, now demanded, they find they have no chance of bettering the present position. Even at the present advance in rates, shippers are not making as much money as they were early in the summer, the advance in prices now current being less than the increase in freights. The scarcity of freightage is becoming more apparent every day, and this together with the increasing rates of insurance afford but little hope that the present prices will long continue.

It would by no means be surprising to find spruce deals advance at least 10s. during the next fortnight, for there are comparatively few vessels of suitable tonnage now offering suitable for the requirements of the lower ports.

In Quebec freights are very firm, and holders of all kinds of timber and deals maintain a firm attitude, and are not sellers except at price that will satisfy them.

Spruce deals, New Richmond—

		£. s. d.
9/25 ft.	3×11	8 5 0
16/25 "	3×9	8 5 0
12/15 "	3×9	8 2 6
9/11 "	3×9	8 0 0
16/25 "	3×7	7 12 6
12/15 "	3×7	7 12 6
9/11 "	3×7	7 7 6
9/26 "	2½×7	8 2 6
9/23 "	3×14 & 15	7 12 6
9/24 "	3×13	7 10 0
9/24 "	3×12	7 12 6
9/25 "	3×10	7 15 0
16/25 "	3×8	7 12 6
9/15 "	3×8	7 12 6
9/23 "	4×13 to 16	9 2 6
9/23 "	4×12	9 2 6
9/24 "	4×11	9 2 6
9/25 "	4×10	9 2 6
9/25 "	4×9	9 2 6
9/24 "	4×8	9 2 6
9/24 "	4×7	9 2 6
Deal ends		6 7 6
Palings		4 0 0

Do., St. John, N. B.—

16 to 26 ft.	3×11	8 5 0
12 " 15 "	3×11	8 7 6
16 " 23 "	8×9	8 7 6
12 " 15 "	3×9	8 2 6
16 " 23 "	3×7	7 12 6
12 " 15 "	3×7	7 7 6
9 " 11 "	3×11 & 9	7 15 0
Scantlings		7 5 0

Birch timber, New Richmond—

19 to 21 in. deep	23½d.	per foot.
18 " 18½ "	20d.	"
17 " 17½ "	19d.	"
17 "	18½d.	"
16½ "	18d.	"
15 " 16½ "	18d.	"
16 "	17½d.	"
15 " 15½ "	17½d.	"
15 "	17½d.	"
14½ " 15 "	17d. to 17½	"
14 "	16½d. to 16¾d.	"
Under 14 "	14½d. to 16½d.	"

LONDON.

The *Timber Trades Journal* of Aug. 26th says:—There are not wanting indications that the present is the turning-point of what promises to be a very active fall trade. The harvest seems now almost assured as being above the average, and prices of wood have come down to a level, below which it is hardly probable they will sink; a rise is therefore evident, and it is only as to the time at which it will make itself felt that there are any doubts. Stocks of flooring boards in the docks are undergoing considerable reductions, and it is just on the cards that the end of the year may find us with very little more of this commodity in the docks than we had to record last Christmas. It is possible, however, that the present shipments will be supplemented to a much greater degree than we are yet aware of.

AUSTRALIAN TRADE.

Messrs. Gemmell & Co., in their report dated Melburne, July 3rd, state:—The amount of business recently carried through shows a considerable falling off from the average, and we do not look for much improvement during the present winter. American lumber.—Prices realized at auction show a reduction on last months rates. Shipments have been beyond our requirements, and as the trade are fully stocked, no improvement may be expected.

WOODEN IMAGES.

A New York paper says that the wood used for figures, no matter what use they are put to, is white pine. The butt end of a new spar serves the purpose best, and is generally used. When green the wood cuts much easier than when dry, and is not so liable to split. The carving is done mostly by the eye, Chalk or pencil lines are drawn on the log in making the general contour. If the figure is that of a man or woman, it is made eight times the length of the head. Ordinarily, the image is one solid block of wood, but if the arm is extended a separate piece is put on, so that the grain will run the right way, to prevent its breaking off. Regular carver's tools are employed, such as chisels, gouges, etc. It takes from a week to a month of steady work to make a figure, and the prices of images range from $50 to $250, according to size. A mermaid three and a half feet high costs $100. The tug boats mount eagles on their pilot houses. These are worth from $40 to $75. Figures have been known to last 200 years. If a thick coat of paint is kept on them they will last much longer than if neglected. The paint closes up the checks and cracks, and prevents decay to a great extent. The figures are fastened to ships' bows with bolts. There are only four or five places in New York where the figures are carved.

Useful Facts.

Weights of logs and lumber are given as follows in a book recently issued by H. K. Porter & Co., Pittsburgh, Pa: "Weight of green logs to scale 1,000 feet, board measure—Yellow pine (southern) 8,000 to 10,000 lbs., Norway pine (Mich.) 7,000 to 8,000 lbs.; white pine (Mich.) off of stump, 6,000 to 7,000 lbs., white pine (Mich.,) out of water, 7,000 to 8,000 lbs.; white pine (Penn.,) bark off 5,000 to 6,000 lbs.; hemlock (Penn.,) bark off, 6,000 to 7,000 lbs. Weight of 1,000 feet of lumber, board measure—Yellow or Norway pine, dry 3,000 lbs.; green, 5,000 lbs.; white pine, dry, 2,500 lbs.; green 4,000 lbs. Weight of one cord of seasoned wood, 128 cubic feet per cord—Hickory or sugar maple 4,500 lbs.; white oak, 3,850 lbs.; beech, red oak or black oak, 3,250.; poplar, chestnut, or elm 2,320 lbs.; pine, white or Norway, 2,000 lbs.; hemlock bark, dry, 2,200 lbs. (One cord bark got from 1,500 feet logs."

Bobbin' Over the Line.

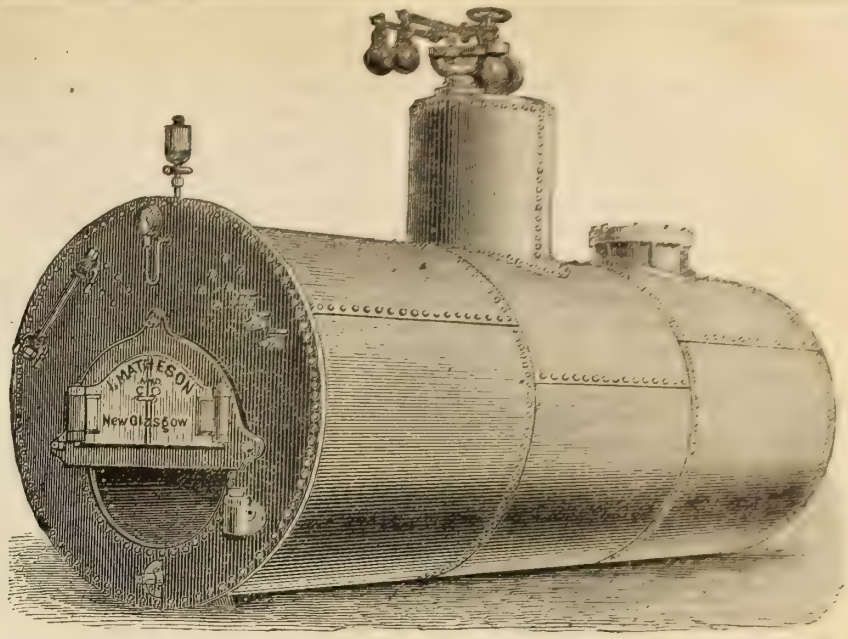
The *Northwestern Lumberman* says:—A manufacturer of bobbins in Massachusetts, finding that he was receiving a large number of orders from Canada, in order to avoid the customs duty of 20 per cent., has set up a factory on the upper flat of a Lachute, Que., saw-mill. He has received a large number of orders in the Dominion as a basis of his new enterprise.

THE U. S. TARIFF.

Before the United States Tariff commission Mr. Arthur Hill, of Saginaw City, stated that the existing tariff of $2 a thousand increased the cutting capacity of Michigan lands 30 or 40 per cent. by giving the operators in that state a chance to work off their coarse pine. If the tariff did not exist the coarse stock of Canada would flood the markets in the East, to the exclusion of Saginaw lumber. This would be so for the following reason: The tariff does not affect the pine of the better quality. In Canada lumbermen skim through the woods and cut the best trees for the purpose of sawing them into deals for the English market. The poor stuff is left for a future cutting. If it were not for the tariff this course lumber would be cut and shipped to the States, where it could be sold at such prices as would drive the common stock of the Saginaw valley out of the market. This would come particularly hard on the Michigan business, since the operators there have latterly been obliged to cut their stumpage pretty close, the larger trees having disappeared. Under the tariff the Michigan operators are able to utilize their coarse stumpage, which adds an income of about $3,000,000 to the people of the state, which otherwise would be burned up and lost. True there is but little profit in it, to the dealers, but the aggregate amount going into the hands of the people from this source is considerable, Such coarse lumber brings an average of $9,50 a thousand, and costs $8 to produce it. With low freights by lake and canal, such as prevail this year, the Saginaw lumbermen continue to make a small profit. Saginaw stands in an unfavorable position compared with Ottawa, which lays down lumber usually at $1.50 a thousand less than it can be done for in Saginaw. But when freights are low and prices are fair the difference is overcome.

Putting Away Tools.

The wearing out of farm implements is, as a rule, due more to neglect than to use. If tools can be well taken care of, it will pay to buy those made of the best steel, and finished in the best manner; but in common hands, and with common care, such are of little advantage. Iron and steel parts should be cleaned with dry sand and a cob, or scraped with a piece of soft iron, washed and oiled if necessary, and in a day or two cleaned off with the corn-cob and dry sand. Finally paint the iron part with rosin and beeswax, in the proportion of 4 of rosin to 1 of wax, melted together and applied hot. This is good for the iron and steel parts of every sort of tool. Wood work should be painted with good boiled linseed oil, white lead and turpentine, colored of any desired tint; red is probably the best color. Keep the cattle away until the paint is dry and hard, or they will lick, with death as the result. If it is not desired to use paint on hand tools, the boiled oil with turpentine and "liquid drier" does just as well. Many prefer to saturate the wood work of farm implements with crude petroleum. This cannot be used with color, but is applied by itself, so long as any is absorbed by the pores of the wood.—*American Agriculturist.*



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IN FOUR SIZES, and other
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MANUFACTURERS OF
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124 & 126 Queen St.
MONTREAL

FLOATING DRIFTS.

To the Editor:

We come to you for advice, and perhaps among your numerous subscribers and correspondents we can be enlightened. We are troubled with two heavy drifts, which have caused us lots of trouble in rafting logs, and we would like to know which is the best method to remove them, as we have not had any experience in removing such obstructions. The two drifts are each 190 steps long and about a mile apart, and are what we call a packed drift; that is, they rise and fall with the river, so it does not make any difference how high or how low the river is, the drifts are on top, and stop all rafting or running of logs. One party tried burning them, but that did but little good. Some have advised us to chop them out, but that seems too expensive and rather slow work. What we want is the easiest, quickest and cheapest method, and we would like to hear from some one that has had some experience in removing such obstructions. We thought of blowing them out with dynamite or Hercules powder, but would wait until we heard from some one else. Anyone giving us information will greatly oblige

TWO SAW MILLES.

Fairfield, Ill., Aug. 14, 1882.

From the description given, we imagine that a few days' work of a gang of good choppers would be the most effective remedy. The rise and fall of the drifts with the changes in the volume of the river indicates a key log, or logs, holding the masses and preventing them going down the stream. If these key logs can be found and broken up, probably the mass will at once move. If it should move in a body the key logs, probably whole trees, will soon come to a stop and again the jam will form about them. By chopping and detaching portions of the drift at a time, the detached portions will probably get wholly out of the way and no further jam be formed, after the key is reached and cut down to safe dimensions. It is usually a tedious job to remove such a drift as is described by our correspondent, but oftentimes it is cheaper to chop and wholly get rid of it, piece by piece, than to move it in a body, unless advantage can be taken of a heavy freshet. We think we should risk a few charges of Giant powder on the lower edges of the drift, and see what effect it had, but think a few days chopping would not be labour lost. Perhaps some of the readers of the *Lumberman*, who have had experience with such drifts, will give their views on the subject.—*Northwestern Lumberman.*

The Barrel.

A gentleman who has been reading upon the subject says that the invention of the barrel, made of strips of wood and rendered tight and strong by hoops, finds in history no notice of origin or inventor. Pliny attributes it to the Gauls of the Po, in Lombardy. There is, however, good reason to believe that the barrel was in use before the Gauls reached Italy, perhaps before their existence as a people. In one of the inscriptions copied by Wilkinson from Egyptian monuments may be seen two slaves emptying grain from a wooden-hooped vessel, while a scribe keeps tally and a sweeper stands by to sweep in the kernels. Close by, a poor victim is undergoing the bastinado, for short measure or petty theft. The measure is barrel-shaped, precisely like the *kaye* of modern Egypt, and would apparently hold about a peck. The age of this inscription is not indicated.—*Northwestern Lumberman.*

It has Entered the Capitol Buildings.

It has finally gained its point and no less a personage than the Sergeant-at-Arms of the House of Commons. Mr. D. W. McDonnell, Ottawa, thus endorses the Great German Remedy: "St. Jacobs Oil is a splendid remedy. I used it on my left hand and wrist for rheumatism, and found all that it is claimed to be. Mrs. McDonnell used it for a most severely sprained ankle; by a steady use of the article for a few days a complete cure was effected. St. Jacobs Oil does its work very satisfactorily and also rapidly; such at least is my opinion."

A GENTLEMAN aged 65, writes; "I heartily thank you for the great boon I have obtained through the use of your wonderful rejuvenator, known as Mack's Magnetic Medicine, advertised in another column of your paper."

THROUGH A BURNING FOREST.

Mr. Newton H. Chittendon, of Portland, Oregon, recently encountered a burning forest, and writes as follows regarding it: Before leaving the coast great volumes of smoke were seen rolling over the forests in the direction of Olympia. Near Elma a horseman cried out that the whole country ahead was on fire; that several families had been burned out; that the roads were so blocked with fallen timber that it would take weeks to remove it. The mail messenger passed us mounted, having left his wagon behind for fear of detention; and before leaving Hicklin's, the crash of fallen trees, sounding like the roar of heavy artillery in the distance, as well as the thickening smoke, gave much ground to fear that the worst reports were not exaggerated. A few miles beyond, reinforced by the road overseer—a broad shouldered brawny man—armed with saw and axes, we found ourselves face to face with, and breathing the hot breath of, the raging, devouring, element. It is impossible for those who have never seen the forests of western Washington to imagine the grandeur and desolation of the spectacle they present when these great fires are sweeping through them. Magnify the fiercest prairie fire a hundred times; add the thundering roar of the rapid downfall of monster firs, big and long enough for an effectual breastwork for 300 men; pile these black burning giants one above another from 10 to 15 in height, over hundreds and thousands of acres; let great burning limbs descend, whizzing and glaring like meteors shot from the heavens; and the cracking of advancing flames through the undergrowth sounds as the musketry of an advancing army, then envelop the whole scene with an atmosphere glaring with heat, stifling with smoke and full of cinders, driving all animals and birds before it in great alarm; witness the consternation of threatened and retreating inhabitants and the picture is still incomplete.—*Northwestern Lumberman.*

Large Belts.

The *Iron Age* says:—

"Messrs. P. Jewell & Sons, of Hartford, Conn., have acquired an enviable reputation for making large belts. According to an item in the Buffalo *Express*, the largest belt ever made from a single width of hide was recently produced by this firm for a New York flouring mill. It was 48 inches wide, 96 feet long, and weighed 1,000 pounds. We learn that this firm are at present making two belts larger than the above, to be used in one of the largest rubber factories in the country. One is 48 inches wide and 120 feet long, and the other 44 inches wide and 150 feet long, both double thickness. These are the largest belts that can be made from a single hide, as no hide can be solid and thick more than 4 feet in width. It is comparatively few years since belts of these proportions could be made, or pulleys on which to run them. No country except the United States is making use of articles of this kind of the dimensions given."

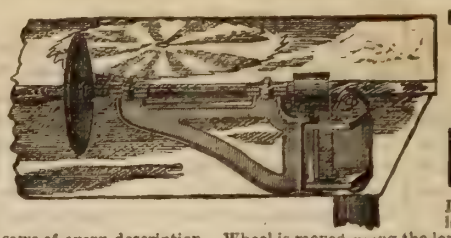
We understand that Mr. Geo. Stethem, of Peterborough, is the only dealer in Ontario who keeps a stock of this belting.

NEVER BE WITHOUT IT.—Tourists and all who are subjected to a change of climate, water, diet &c., should never be without Dr. Fowler's Extract of Wild Strawberry, the infallible remedy for all Summer complaints.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly as to its wonderful effects.

A WISE PRECAUTION.—During the Summer and Fall people are liable to sudden attacks of bowel complaint, and with no prompt remedy or medical aid at hand, life may be in danger. Those whose experience has given them wisdom, always keep Dr. Fowler's Extract of Wild Strawberry at hand for prompt relief, and a Physician is seldom required.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.



To MILLMEN!

HODGSON'S

Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

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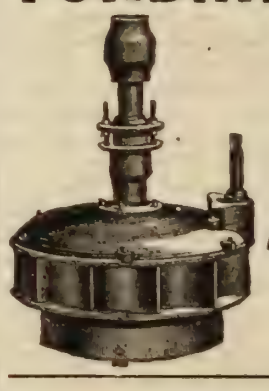
FOR THE BEST

TURBINE WATER WHEELS



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Mill Machinery,

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AMERICAN HEAVY

Oak Tanned Leather Belting

Rubber Belting, | Rubber Packing,
Rubber Hose, | Linen Hose,
And Cotton Hose.

A Full and Complete Stock always on hand. Write for Prices and Discounts.

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WAREHOUSE—10 & 12 King Street East,

P.O. BOX 556. TORONTO. 15

SAW MILLS!

Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,

ST. THOMAS, ONTARIO.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills

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594, 596, 598, St. Joseph St.

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Manufacturers of

LEATHER BELTING

Fire-Engine HOSE,

Lace Leather,

Mill Supplies, &c.

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Represents
No. 3 20-Horse Power
FIRE-PROOF
CHAMPION
SAWMILL
ENGINE
WITH
SECTIONAL
SAFETY
BOILER.

Build 4 Sizes Fire-Proof Champion Engines

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WITH PLAIN OR SECTIONAL BOILER

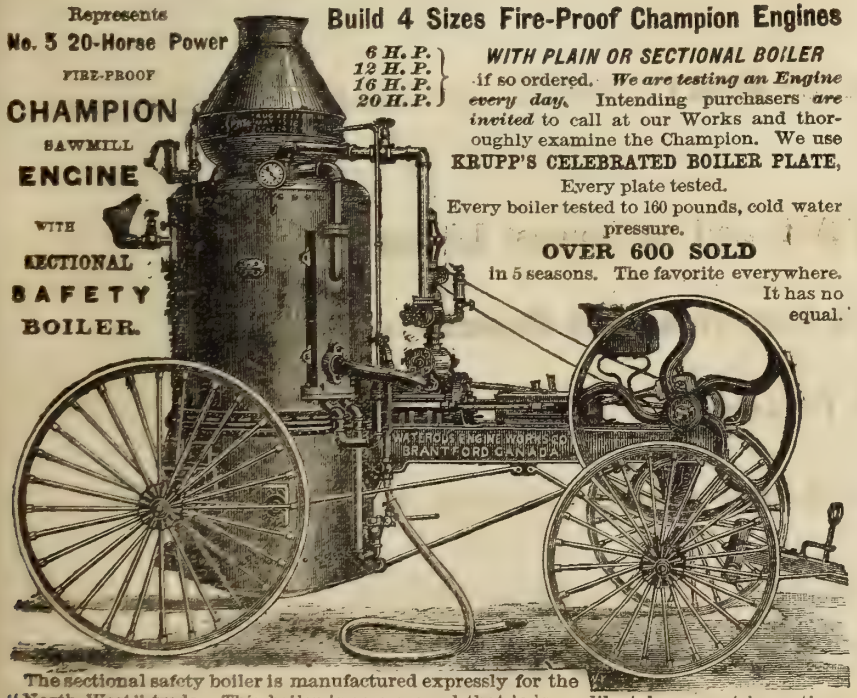
if so ordered. *We are testing an Engine every day.* Intending purchasers *are invited* to call at our Works and thoroughly examine the Champion. We use **KRUPP'S CELEBRATED BOILER PLATE,**

Every plate tested.

Every boiler tested to 160 pounds, cold water pressure.

OVER 600 SOLD

in 5 seasons. The favorite everywhere. It has no equal.



The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. *We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies.* Largely used by the Pacific Railway Company and all the large Colonization and Ranche Companies.

ADDRESS WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.

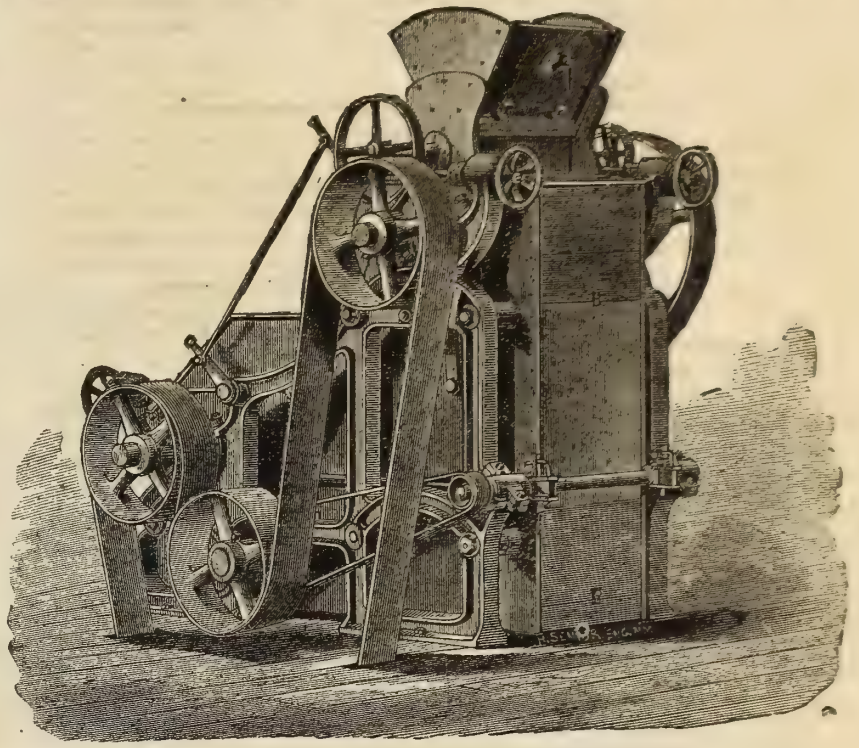
Send for New Circular.

THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

MANUFACTURED EXCLUSIVELY BY

MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

☞Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

1L10

Mention this Paper.

ARRIVED AT QUEBEC.

The *Chronicle* gives the following list of rafts arrived at Quebec :—

Sept 1—Hamilton Bros., pine deals, Point-au-Pizeau.

Sept 2—Sundry lots, staves, sundry coves.

Burton Bros., pine, &c., Sillery cove.

John B. Campbell, ash, etc., Cap Rouge.

McLachlin Bros, white & red pine Cap Rouge.

do. red pine, do.

J. R. Booth, white and red pine, Cap Rouge.

Sept 4—Fraser & McCoshen, pine, &c., St. Lawrence Docks.

J. R. Booth, pine. &c., Cap Rouge.

John McRea & Co, staves Indian Cove west.

Flatt & Bradley, staves, St. Micheal's cove.

Sundry parties, deals, South Quebec.

Sept 5—J. K. Ward, pine, ash, &c., South Quebec.

Collins Bay Co., oak, etc., Indian cove west.

D. D. Calvin, and Co., (2), oak, pine, &c., sundry coves.

Sept 6—J Sharples, Sons & Co., (Forster Lot) deals, Market wharf, Levis.

Sept 7—G. B. Hall & Co., deals, Montmorenci.

J. R. Booth, white and red pine, Woodfield cove.

R. R. Dobell & Co., sawn plank, alongside bark Marianna III.

To Plug Leaky Boiler Tubes.

If the leak is near the head, fit and drive in a short ferrule ; if the leak is in the body of the tube where a band cannot be bolted around it, take it out and put in a new tube.

SURE, safe and effectual, that old remedy, Downs' Elixir, for the cure of Coughs and Colds.

THE well known drug firm of N. C. Polson & Co., Kingston, writes that Dr. Fowler's Extract of Wild Strawberry has long been considered the best remedy for summer complaints in the market, and adds that their cusromers speak in the highest terms of its merits. Wild Strawberry is the best known remedy for Cholera Morbus, Dysentery and all Bowel Complaints.

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to Sept. 8 :—

	1880.	1881.	1882.
Waney White Pine..	1,744,365	1,587,594	1,631,073
White Pine.....	3,484,674	4,602,956	6,176,139
Red Pine.....	824,655	1,366,124	1,091,146
Oak.....	1,209,516	2,222,023	875,308
Elm.....	892,054	931,725	562,629
Ash.....	227,872	359,501	207,939
Basswood	206	3,356	1,273
Butternut.....	627	1,574	2,585
Tamarac.....	21,395	22,728	8,234
Birch & Maple.....	555,874	140,428	263,473
Masts.....	4 pcs	— pcs	33 pcs
Spars.....	23 pcs	— pcs	51 pcs
Std. Staves.....	16.4.3.15	314.6.3.0	304.4.0.16
W. I. Staves.....	260.0.3.0	326.0.3.0	914.8.2.2
Brl Staves.....	.....	.....	42.0.2.3

JAMES PATTON,
Supervisor of Cullers.

A TREE was cut at Jackson's camp on the Skagit, W. T., a few days ago, that yielded from logs of 32, 30, 30 and 26 feet, in all 118 feet in length, and measuring 71 inches at the top. The logs cut from the tree scaled 24,000 feet, which, at $7 per thousand, will amount to $168.

SAYS the *Virginias*, of Staunton, Va. : We would like to have some of the "forest-wise" people—wise from European, but not from an American stand-point—who are croaking about the destruction of our forests, and predicting that we will have a treeless country in a short time, see how rapidly and beautifully Culpeper and other counties along the Virginia Midland, that were almost deforested during the late war by the great armies that camped and wintered there, are now becoming afforested in the lifetime of half a generation. We noticed a few days ago fuel and fencing being cut where Meade's army burnt up every tree in the winter of 1863-4.

ONE dose of Baxter's Mandrake Bitters will relieve Sick Headache. One bottle effects a cure. Price 25c. per bottle.

ADAM McKAY,

MANUFACTURER OF

Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19

144 Upper Water Street, HALIFAX, N.S.

Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent ; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

COBOURG, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &c., J. E. KENNEDY

Beware of Counterfeits and Imitations.

Price 20c., 25c., and 50c. per bottle.

LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices.

All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.

BOOK-BINDING of every Description got up in a very Neat and Superior manner.

Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

TOKER & Co.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit, President. JAMES T. BARNARD, Hamilton, Secretary-Treasurer. SAMUEL BRIGGS, Hamilton, Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

And Specially Adapted For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH, GALT.

Messrs. R. H. SMITH & CO., ST. CATHERINES.

JAMES ROBERTSON, ESQ., MONTREAL.

Messrs. JAMES ROBERTSON & CO., TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

1.1

EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS
TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulleting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ — ⅝ in. hole.
10x¼, 10x⅜, 10x½, 10x⅝ — ⅝ in. hole.
12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x⅞ — Holes, ⅝, ¾ and 1 inch.

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

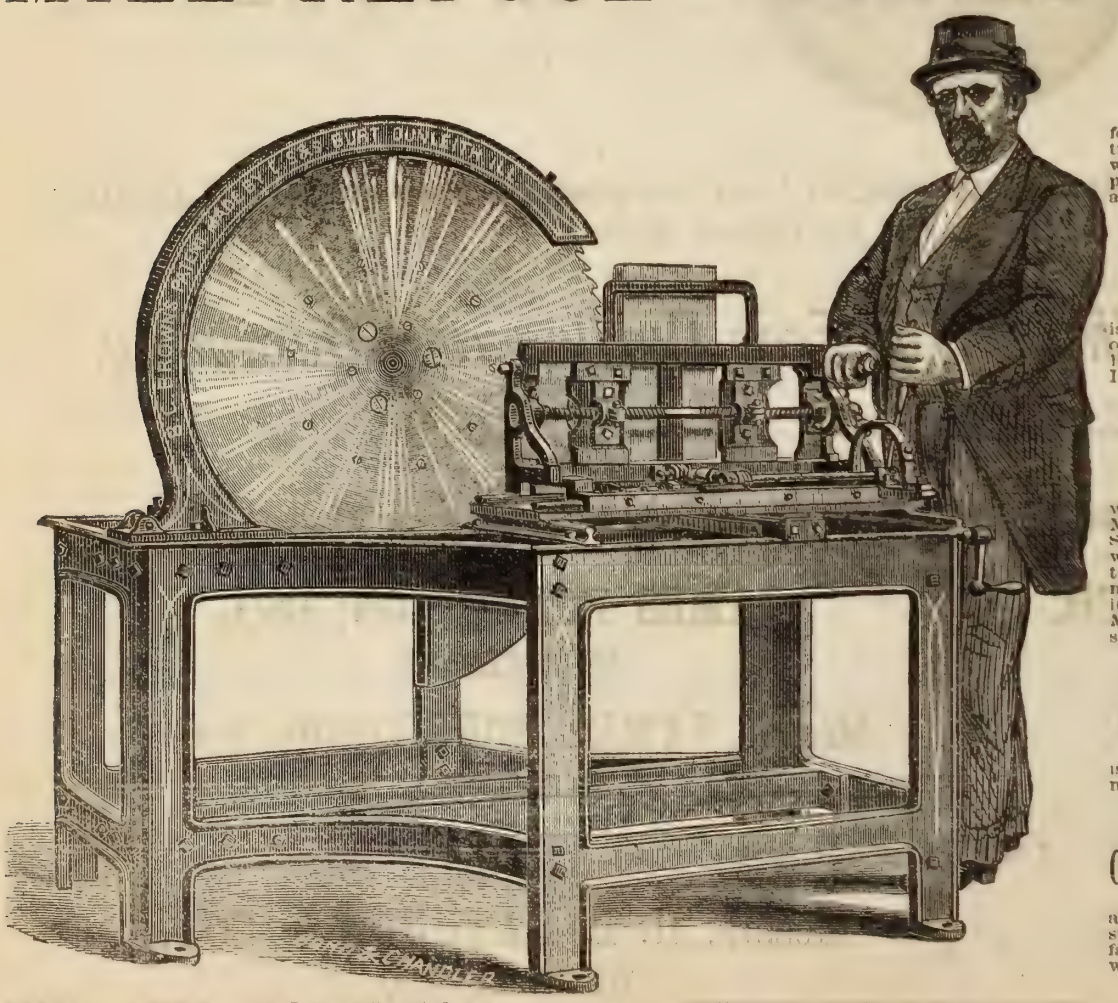
CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 13t13

Tanite Co. Stroudsburg, Monroe Co. Pennsylvania.

CANADIAN TRADE SPECIALLY SOLICITED.

MILL REFUSE TURNED INTO MONEY



BY THE USE OF

Brown's Patent Shaft and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c., from spalts, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion; have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out; sixteen 16 ft. boards, or eighteen 13 ft. boards, have been cut by it in one minute. It is the established feed for steam mills; I make a specialty of its manufacture; will guarantee satisfaction.

Our Patent Twin or Span Circular,

with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab logs 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Trenton, and Georgian Bay Lumber Co's Mill, Waubaushene and Port Severn. ☞I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise; I keep it constantly on hand, ready for immediate shipment.

Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.

WILLIAM HAMILTON, Peterborough Foundry and Machine Works, PETERBOROUGH, Ont.

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

VOL. 2. PETERBOROUGH, ONT., OCTOBER 2, 1882. NO. 19.

DEMAND FOR HARDWOODS.

There is a constantly increasing demand for the finer grades of wood in the United States for use in the manufacture of furniture and for house finishing. Pine is being rapidly superseded by walnut, cherry, ash, oak and other finer kinds of woods, especially in the east, and the future is pregnant with the grandest results for those who shall engage in the culture of walnut and cherry. It has been demonstrated from actual experiment that a quarter of a century is sufficient time to propagate walnut and bring it to a state of profection fit for the market. Thus it will be seen that if a farmer could devote sufficient time each year from his other duties to cultivate a single acre of walnut trees in twenty-five years he would begin to realize from his investment, and he would have an annual income from that time forward which would abundantly repay him, and his annual crop of walnut lumber would be found the most renumerative of anything which he could produce from the soil.

Wild cherry is also a wood for which a large demand is springing up, which must inevitably make it very valuable in the future. It is used principally to supply the place of walnut. It is extremely close grained, and can be very highly polished, and is at present very extensively used in making ebonized furniture and in the internal fittings of railroad coaches and public buildings.

It would be an excellent thing if the agricultual community could be brought to a realizing sense of the pecuniary advantages of tree culture, as much of the land which is not available, for many reasons, for the production of cereal or vegetable crops, might profitable be utilized in the direction indicated. The agricultural societies throughout the country might accomplish an excellent work by a properly organized effort, and we would impress upon the Bay county agricultural society the desirability of its taking an advanced stand in this direction, by the offer of premiums sufficiently liberal to induce the commencement of this work in our own county. The society might thus be one of the pioneers in the accomplishment of a grand and noble object. Will it make the effort?—*Lumberman's Gazette.*

FURNITURE WOODS.

A correspondent of the *Northwestern Lumberman* says:—There are several small furniture factories at Potsdam that use maple, ash and cherry, derived mostly from the forests of the vicinity. The wood mostly used is ash, and a fine wood for ordinary furniture it is. Variety to plain light color is given by what the manufacturers call imitation black walnut, put on in moldings, veneers, etc. Ash furniture can be afforded much cheaper than walnut, and, if it does not give an apartment as rich an appearance, is handsome enough for any ordinary use. The people in this section of the country, if they are slow, have sense enough to know that they can sleep as soundly in a room furnished with ash as they can in one furnished with walnut, and inasmuch as ash costs less money than walnut, some of the extremely economical people out here would not be able to sleep at all with a tall walnut bedstead, that cost one hundred dollars, beetling over their recumbent forms. The furniture men here appreciate the value of the birch, cherry and maple now standings and nearly inaccessible in the "South Woods," and hope for the time when railroads will be built so that it can brought out. No better points than Potsdam and Norwood for manufacturing furniture could be found, if the facilities, were once supplied for transporting the raw material out of the forest. Enough furniture wood exists in the Adirondack district to furnish another Grand Rapids, and some day it will be utilized. But it is probable that it will be sawed in the vicinity and shipped to Boston, New York, and other eastern and southern points, for manufacture into furniture.

THE GUM TREES OF AUSTRALIA.

The ranges are covered with a dense forest of gum trees, in many places of enormous height, standing with their smooth trunks close together and running up often for a height of 200 feet without giving off a branch.

The light-colored stems are hung with ragged strips of separated bark.

The great slenderness of the trunks of these giant gum trees, in proportion to their height, is striking, and in this respect they contrast most favorably with the Californian "big trees,' which, in the shape of their trunks, remind one of a carrot upside down, so disproportionately broad are they at their bases. The large species of gum tree, the tallest tree in the world, is *Eucalyptus amygdalina.*

As Baron von Muller says: "The largest specimens might overshadow the Pyramid of Cheops."

Grisebach, in his account of the vegetation of Australia (A. Grisebach, "Vegetation der Erde," p. 216, Leipsic, W. Engelman, 1872), dwells on the close relation of interdependence which exists between the tree vegetation and the coating of grass which covers the ground beneath it, and remarks that the amount of light allowed by the trees to reach the ground beneath them is rendered more than usually great by the vertical position in which their leaves grow; hence the growth of the grass beneath is aided.

It may be that this, permitting of the growth of other plants beneath them, and consequent protection of the soil from losing its moisture, besides other advantages to be derived, is the principal reason why, as is familiarly known, two widely different groups of Australian trees, the eucalypti and acacias, have arrived at a vertical instead of a horizontal disposition of their leaves by two different methods. The acacias have accomplished this by suppressing the true horizontal leaves and flattening the leaf-stalks into vertical pseudo leaves or "phyllodes."

The gum trees, on the other hand, have simply twisted their leaf-stalks, and have thus rendered their true leaves vertical in position.

There must exist some material advantage which these different trees derive in common from their peculiar arrangement, and the benefit derived from relation to other plants by this means may be greater and more important than that arising from the fact that the vertical leaves have a like relation to the light on both sides, and are provided with stomata on both faces. In support of this conclusion I was told, when at Melbourne, that when the native vegetation was cleared away from under gum trees they ceased to thrive, and in time perished.

I was shown a number of gum trees, not far from the city, scattered over some public land, covered with only short turf, which seemed to be mostly in a dying condition.—*H. N. Mosely, Ghallenger Notes.*

AN OUTSIDE CRITIC.

The *Northwestern Lumberman*, of Chicago, in an article entitled "Canadian Lumber Logic,' says:—Canadian lumber purchasers have learned a lesson. During the depression of some years ago lumber declined to such a notch that the coutinued advance it has since taken has appeared inordinate to retailers. They, it is stated, unwisely permitted their stocks to run low, either because their faith in a recurrence of the decline was strong or with a view to forcing the market to a point which would suit their notions of what values should be. This policy has been pursued so far as possible by the Canadian handlers of lumber for the last two years, and the same is true, more or less, this side of the border. But the result has simply been in the upward direction, and during the last month prices on several kinds of lumber were advanced in the Canadian market from $1 to $2, which is about the same as the Chicago advance. In regard to the reasons of constant advance the manufacturers of lumber point to the fact of an increase in the price of stumpage, labour and supplies of all kinds, which they say has been in a greater ratio than the upward movement in the lumber market.

The argument is carried still further. It is cited that emigration to the United States and Canada has created a large demand for the erection of shelters. At the same time the natural and increasing wants of both countries have cut the same important figures which they always have. In the Manitoba market the demand has been abnormal. Lumber is constantly and rapidly diminishing in supply, and increasing in the cost of production. Under these conditions the manufacturers insist that nothing but persistent advance can be logically expected. This line of philosophy is then clinched by the argument that with good crops and the absence of financial depression, prices must go up.

It is instanced that lath is in short supply, everywhere, and the mill men do not marvel at it. For years 1,000 pieces of lath, equal to 500 feet of lumber, have been selling for $1. It is then not strange that operations upon such an unprofitable basis should be curtailed. The mills have preferred selling slabs for fuel to making them into lath. The result is indicated by the recent advance in lath to $2.25 to $2.50 per thousand. One Canadian firm states that more orders for lath have reached that house than could be manufactured in three years, and the consequence is a material advance in price.

Of this line of logic many will say it is a bull argument straight from the shoulder. But there are certain facts presented which are hard to get around, and no one will claim that the conditions are just right to sustain the bearish views. Even if the inevitable upward tendency were wholly a bull movement it is plain that no one possesses weights that are heavy enough to hold prices down, and while they continue to ascend, it is best to take the bull and the dilemma by the horns, and buy before stocks get up a peg higher.

It appears the Canadian retailers find themselves with bare yards right on the heels of an advance, when they might have stocked up long ago, and the present advance would in itself have counted for a good percentage of profit. Possibly the American dealers would do well to admit that the bulls are holding prices on their horns, and go in for the needed stock before rates get another toss. There is no telling when a red cloth, in the shape of a coloured census bulletin, will stir up taurus again so that he will brace himself for another pull on the list.

There is some reason for attaching importance to a rise in lumber in Canada, though the advances made by the Chicago Lumberman's Exchange could as well be pointed to. It is possible that in Canada lumber is sold according to the raise, and that it is not necessary to copper an official list in order to get at true values. With the past antics of the Chicago trade fresh in the mind, on the other hand, it is a difficult matter to tell whether an advance advances.

THE Ottawa *Citizen* says:—Mr. Richard Nagle has sold a small raft for 25c. per square foot. Messrs. Thistle & Carswell have sold all their square timber in the Quebec market for 35c. per square foot.

FORESTRY MEETING.

The Montreal *Witness* of Sept. 21st, says:—A goodly number of substantial citizens met in the old post office building, 138 St. James street, last evening, for the purpose of considering the question of a Canadian association for the propagation and protection of forests.

Mr. JAMES LITTLE, as the convener of the meeting, stated its objects, and nominated the Hon. H. G. Joly as chairman, and Mr. Stuart Thane as secretary. The nominations having been received with universal applause, the gentleman named came forward and took their respective stations.

The Hon. Mr. JOLY then addressed the meeting, calling attention to the numerous draughts being made upon our already depleted forest wealth. Attention had been called to this subject as far back as 1690, under the old French kings; but the governors of those days do not appear to appreciate the necessity of taking protective measures. The laws were then rather favourable to forest destruction than to their preservation. For instance, there was a law compelling a man whose forest adjoined a neighbour's fields to cut a belt thirty feet wide along the dividing line to admit of sun and air getting at the neighbor's crops. This had the effect of compelling many forest owners to cut all their valuable timber, and for this reason Mr. Kinkers introduced and passed an act repealing the injurious law. At the recent Forestry Congress here a resolution had been adopted recommending that the matter of forest conservation should be submitted to all the Legislatures on the Continent for their serious consideration. Looking back for a precedent to guide them in the present effort, he had accidentally come across an account of efforts made by Mr. Levesque twelve years ago, which were well calculated to prove successful, but, unfortunately, they died with their author. That gentleman had organized an association, the condition of whose membership was simply a pledge on the part of each member to plant a certain number of trees each year. The honorable speaker recommended some similar organization to effect the same object now. This had been deemed an appropriate time to inaugurate a movement, in view of the large number of people in the city from various sections of the country. One of the leading objects to be arrived at by the proposed organization was an attempt to propagate timber woods of sorts that nature has not provided us with, and in this connection he referred to his own experiments, very encouraging in their results, with black walnut. He would advocate, all the more opportunely in view of the presence of the Hon. Mr. Lynch, Commissioner of Crown Lands, the adoption of some system, under the auspices of Government, of replenishing the constantly depleting forest wealth of the Province. To stimulate us we had the example of our republican neighbors, a practical people inclined to look first at the money side of the question. At present no idea was taking more hold of them than that of restocking their forests. He had met with General Sherman, one of their leading citizens, that evening, who, upon being informed of this meeting, had expressed deep sympathy with the movement and would have been present had engagements permitted. The honorable gentleman recommended educating the people upon this subject through the agency of our schools and colleges as one of the very best that could be employed. Referring to arbor, or tree-planting day, now an established institution in the United States, he was sure the Government of this Province would favor the institution of such an anniversary here. The spring time would not be favourable for such a purpose here, on account of the precarious nature of the season here, which taxed the farmers' closest attention. Another suggestion he would make was that the ladies should be enlisted in the cause with the all-powerful influence and devotion that they brought to all their undertakings. Our grain trade was all important at present, but we should not forget that once the timber was our only trade and the beginning of the prosperity of to-day. We ought to feel grateful to that industry for the start made by it, and we also owe it to posterity that we should hand the Province down as rich in woods as we found it. There were streams in the Province that, eighty or ninety years ago, furnished never failing power to mills, which were now as intermittent in their periods of usefulness as the rains upon which they depended for their supply, and this because their banks were denuded of their former wooded growth. Our climate was undergoing change under the unnatural influences that the present movement was designed to check, but it was not too late to take measures that might save us from such inundations as many portions of Europe are periodically suffering. Mr. Joly was frequently applauded during his address as well as at its close.

The Hon. Mr. LYNCH, Commissioner of Crown Lands, said he came to show his keen interest in the objects of the meeting, and he conveyed the deep regrets of the Hon. Premier of the Province for his inability to attend. He referred in terms of high appreciation to the honorable chairman's action last session in bringing the subject of forestry to the attention of the Legislature, which he rejoiced to say had met with no division of sentiment, and which it had been his great pleasure to support. Those taking part in this movement he assured of the Government's hearty sympathy, and it was a matter in which all could rise above party division. He pledged the Government's approval and support of organized effort in the direction sought. The fortunes of the people, both present and future, were in the hands of the rulers of the day, and they were bound to support projects for the advancement of the same within their jurisdiction, For his part he favoured the organization proposed on this occasion having Provincial rather than aiming at Dominion scope. The question as to what season should be adopted for general tree-planting he recommended to the fullest consideration as being of vital importance.

The audience gave an enthusiastic reponse to to the honorable gentleman's eloquent speech at every point.

Mr. MARLER was in favour of a provincial organization and moved a resolution to that effect. Among other good suggestions, he urged that the forest rangers to be appointed should be educated men and lovers of trees.

Mr. HENRY LYMAN, accepting the question of forest culture and protection as a foregone conclusion, proceeded to express his hearty approval of the suggestion of utilizing the educational institutions to build up healthy public opinion upon the matter. It was the duty of governors and governed to promote the objects in hand. One condition of membership ought to be a reasonable money fee. With reference to the proposed stipulation that each member should plant some trees every year, it should be provided in all cases that the member has land in which to plant. He had studded all his ground with trees, and feared his next duty was to cut some down. Mr. Lyman concluded his practical remaks with a suggestion that a committee of organization be appointed. In response to calls,

Dr. T. STERRY HUNT took the floor. He claimed to be a pioneer in this business. It was thirty-five years since he began the geological survey of this province. In the course of that task he had observed the vast waste of trees then going on in manufacturing potash from them by most extravagant methods, and the primary destruction of valuable timber in that process often fell short of that occasioned by fugitive fires starting from the potash piles, and devastating immense tracts of forests. There were many places where the soil was of such a composition that it took many years to recover from the effects of these burnings sufficiently to yield life to new growths. La Tortue River, flowing into the St. Lawrence, Dr. Hunt gave among other instances of streams within his knowledge which once sustained mills but were now inadequate for that purpose. In his European travels he had seen once fertile valleys, such as the Duros, that from being despoiled of woods had become sterile. He had in his geological report of 1857, protested against the forest waste encountered by him in his explorations, and warned the Government of its certain bad effects. Forests were then regarded as a shelter for bears and other evil beasts to be swept away as expeditiously as possible, and his representations had not borne much fruit.

Mr. BARNARD thought no time should be lost. Let all now feeling an interest set the example in tree planting and induce all they can influence to follow it. He suggested the encouragement of farmers' clubs, with forestry as a main object in their formation, as one of the best aids to the cause. These being useful institutions in a high degree otherwise, their general establishment with this particular object in view would amount to killing two birds with one stone. Another sugggestion he offered was the enlistment of school children, who could do a great deal by planting trees about the schoolhouses, many of which stood badly in need of pleasant shade. Let organization, he urged, be proceeded with at once.

Dr. HENRY HOWARD, after general remarks in line with previous speakers, seconded Mr. Marler's proposal for the formation of a Provincial Association, thus bringing that point squarely forward.

Mr. COSTIGAN moved in amendment that a Dominion Association be formed.

Dr. ALLOWAY seconded the amendment, urging with great force the desirability of our placing the results of home labour before the British and European peoples with a distinctive stamp of their Canadian origin. He pointed out that Canada suffered severely in this respect from Canadian productions being almost invariably classed as American in the markets of the Old World, and this was the case even in the Mother Country, as he knew from personal observation in English ports.

Messrs. LYMAN and MARLER again supported the Provincial idea, the latter giving as an additional argument that the society would require immediate incorporation to work with advantage in the Province.

Mr. BEALL had entered the meeting in favor of Dominion organization, chiefly in view of the great necessity of Manitoba being started in the work. Since listening to other speakers, however, he had altered his opinion, feeling that there was nothing to prevent other Provinces having their own organization, with mutual affiliation between all.

Mr. J. K. WARD favoured the Province as the field of action, because Crown lands were under Provincial control, each Province having a system of management thereof peculiarly its own.

Mr. COCHUE wanted to start as a Canadian institution, so that the commercial metropolis should be the recognized pioneer. The promises made on the part of the Provincial Government should give courage for seeking a more comprehensive scope rather than cause a narrowing down to its constituency.

The Hon. Mr. PERRAULT argued in favour of the Province, as they wanted to give the Government encouragement in stopping the great waste going on in the public lands. We should see that our remaining fifty million acres of timber were not destroyed. In Europe the extent of forests was now being increased rather than diminished. Here the system for destruction of forests was perfect, as the only officers in the woods were the stumpage surveyors, whose duty was to see that the Government got the greatest possible amount of revenue out of the timber limits. There ought to be a system adopted whereby as much forest should be reproduced annually as was used. There would then be a perpetually standing capital of natural wealth, out of which the cost of the system would come many times. Begin at home in our own Province.

Mr. BARNARD thought much time was being wasted upon one point, and therefore moved, seconded by Mr. Costigan, that an organization committee headed by Mr. Little be formed, which should decide upon the jurisdiction of the organization.

The CHAIR suggested, with manifest approval, that the main question should be put before organization was preceeded with.

Mr. W. DRYSDALE then suggested that the organization be called "The Canadian Forestry Association of the Province of Quebec," which he considered would combine the ideas of all parties to the discussion. This suggestion was taken as a happy one all around, and having been accepted by the mover and seconder of the main resolution, and the amendment also being withdrawn by its originators, the question was put to the meeting in the form following and unanimously carried:—

"Proposed by Mr. MARLER, seconded by Dr. HOWARD. That an association be formed for the purpose of protecting our forests and planting forest trees, and shall be known as 'The Canadian Forestry Association of the Province of Quebec,'"

The CHAIR suggested that the Governor in-Council be requested to consider the selection of an arbor day for the Province, and another gentleman suggested that the rural municipal councils could best judge of a day suitable for their respective districts. The view was not concurred in by Mr. Lyman, who feared the councils would neglect the matter, and considered the Government proclamation would have more influence.

A desultory discussion ensued while the chairman was selecting a committee of organization, Dr. Alloway did not believe trees would flourish in Manitoba, as at a certain depth the soil was perpetually frozen, which was the reason corn could not be raised there.

Messrs. Baylis and Buchan offered suggestions, the latter that the cause should be brought before the agricultural societies at the current fall exhibitions.

The following committee of organization was announced from the chair:—Messrs. Barnard, Little, Beaubien, Hunt, Perrault, Ward, Lyman, Marler, Drysdale, Lewis, Dr. Howard, Prof. Bovey, Messrs. James, Baylis, Massue, Bryson, Principal Dawson and Mr. Joly, to meet in the same room at half-past nine on Friday, and report at a general meeting.

A short discussion on arbor day then took took place. Mr. Perrault suggested the first week in October, and that prizes be given to counties making most satisfactory returns. Dr. Howard thought that time rather early, and preferred prizes for individuals. The Chairman said that a law was passed last session, providing for prizes to individuals for tree-planting. On motion of Mr. Perrault, seconded by Mr. Drysdale, it was resolved to ask the Government to have an arbor day instituted in the province by proclamation.

The meeting then adjourned, those present registering their names in an index in an adjoining room.

QUEBEC FORESTRY ASSOCIATION.

The Montreal *Gazette* of Sept. 23rd, says:—At yesterday's meeting of the committee appointed to consider the organization of this association, there were present, Hon. Mr. Joly, in the chair, Messrs. Wm. Little, Dr. Henry Howard, Dr. T. Sterry Hunt, John Lewis, J. A. U. Beaudry, Stewart Thane, acting secretary, Ed. A. Barnard, James Baylis, E. S. Orr, of Cookshire, Geo. W. Stephens, J. K. Ward, J. O. Perrault, G. L. Marler, James Little, Leonard G. Little.

After some discussion it was resolved to name the new society, "The Forestry Association of the Province of Quebec."

The following draft of the constitution of the Association was submitted to the Chairman and adopted.

1st. That the name of the Association be the "Forestry Association of the Province of Quebec."

2nd. The object of this Association is to secure the efficient protection of our standing forests; to promote the re-wooding of denuded districts, and to encourage the selection and cultivation of the most valuable kinds of forest trees that will suit our climate and circumstances.

3rd. Every member of this Association who owns land fit for the purpose must undertake as his contribution to sow or plant, or get sown or planted, annually, at least 25 forest trees; to give them proper care, and to send, at the time appointed, a report of his operations to the secretary.

4th. The contribution of members who are not so circumstanced as to be able to cultivate forest trees, will be $2 a year, to be applied to the purposes of the Association.

5th. That it shall be the object of this Association to have representative members or branch societies in every municipality in the Province.

6th. The direction of the Association will be

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entrusted to a General Committee to be appointed at a general meeting of the members.

7th. The quorum of the General Committee will be five members.

8th. The General Committee will appoint, at the first meeting of the officers of the Association, and will have power of adding to their number, such men as take an active interest in the question of forestry.

9th. Apart from the general meetings which may be summoned from time to time by the General Committee, there will be an annual meeting at such time and place as the General Committee may decide, and the results of the operations of the year will be laid before that meeting, and a new General Committee elected.

10th. The seat of the Association shall be in Montreal.

It was suggested that mayors, or *cures* of municipalities should be *ex officio* members of the Association, with the view of securing their influence in the placing of trees by the roadside.

MR. WILLIAM LITTLE said he had no doubt that His Excellency the Governor-General would have no objection to become a patron of the Association.

Mr. James Little and Mr. Leonard Little were added to the General Committee.

The meeting then adjourned till Saturday next.

Far Northwest Timber.

THE valleys and gorges of southern British Columbia are abundantly timbered with fir and white pine. Cedars are plentiful, measuring two and a half feet in diameter, 150 to 200 feet high, and frequently 100 feet from the ground to the lowest limb. An enthusiastic visitor to the region describes it as the lumberman's heaven. Some of the white cedars are said to measure 27 feet in circumference.—*Northwestern Lumberman.*

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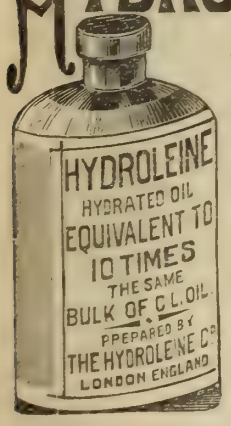

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Brevity in Speech—Sweetness in Music.

Some one has said that short speeches are most impressive, and simple, sweet music, the most touching. If there be anything in the idea, certainly the following from C. C. De Zouche, of De Zouche & Co., Piano and Organ Dealers, 233 St. James street, Montreal, is to the point and convincing:—"St. Jacobs Oil has proved of incalculable value to me in a case of rheumatism, having given me instant relief." In the same strain of expressive brevity writes Mr. John C. Fleming, editor in chief of the Montreal *Post*:—"I have much pleasure in stating that, from the use of St. Jacobs Oil, I find it excellent and I think it a good medicine."

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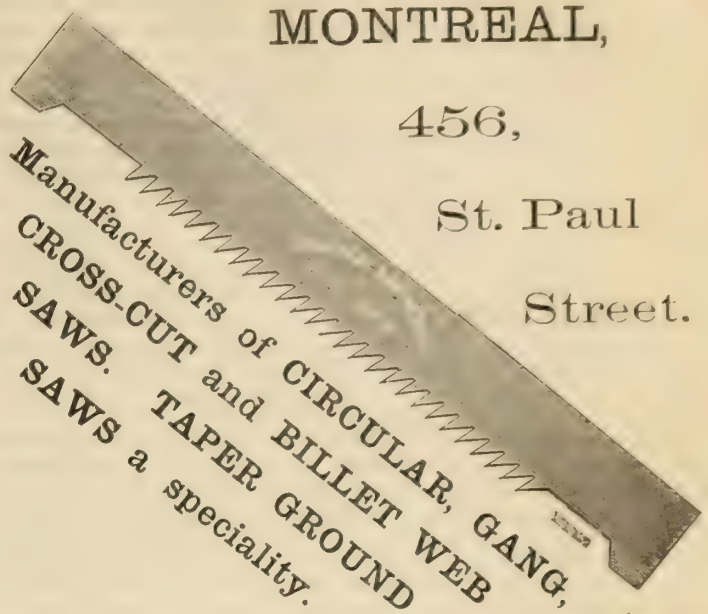

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INFLUENCE OF FORESTS UPON STREAMS.

The *Kaffrarian Watchman* says:—The above is the topic of one of the sections of a very interesting report upon forestry, prepared by Dr. F. B. Hough, under the direction of the United States commissioner of agriculture. Dr. Hough collects the facts in support of his line of argument from a variety of sources, and we shall here avail ouselves of his labourious industry and make use of his examples to show the "influence of forests upon streams." "Mr. James Brown, of Sterling, Scotland, a standard authority upon forestry" (runs the report), "in speaking of the effect of tree planting upon moisture, says:— 'I have frequently been surprised to find (on examining woods which had been planted some ten or twelve years, all the land under which had been considered dry at the time the plantation was made) wet spots, spreading wider and wider every year, and some of them even beginning to throw out runs of water; thus proving that under the shade of the trees the larger portion of the moisture of the land is retained, and therefore accumulates in spots, according to the nature of the subsoil." The reference is made to a volume, entitled "*Influence des Forets sur les Climats et les Sources*," and published at Montpelier in the year 1874, which contains an account of certain observations prosecuted by one M. Jules Maistre de Villeneuvette during a period of 18 months in a wooded basin and in one that had been cleared, but other wise similar in soil and conditions. The former, with an area of seven hundred and seventy hectares, delivered one hundred and ten litres of water very regularly; the other, with 6,786 hectares, had a drainage of only ten or twelve litres a second, and was very irregular. He found the temperature in the open field at least 10° C. above that in woods. He noticed that, in the southern region, the cultivation of cereals is becoming more uncertain and less profitable, and that the injuries by the *Phylloxera* upon the vine roots were more destructive." Then the report enlists in its service Mr. R. U. Piper, from whose work on the "Trees of America" the following extracts is made by way of illustrating the return of water by restoring the woodland shade: "Within about one half-mile of my residence there is a pond upon which mills have been standing for a long time, dating back, I believe, to the first settlement of the town. These have been kept in constant operation until within about twenty or thirty years, when the supply of water began to fail. The pond owes its existance to a stream which has its source in the hills which stretch some miles to the south. Within the time mentioned these hills, which were clothed with a dense forest, have been almost entirely stripped of trees; and to the wonder and loss of the mill-owners, the water in the pond has failed, except in the season of freshets, and, what was never heard of before, the stream itself has been entirely dry. Within the last ten years a new growth of trees has sprung up on most of the land formerly occupied by the old forest, and now the water runs all through the year, notwithstanding the droughts of the last few years." Next a fact is mentioned in connection with the Ohio River. "About 1871-72," runs the report, "the waters sank lower than had been known before, and at Smith's Ferry, where the Pennsylvania line crosses, a ledge of rocks was laid bare that had not been seen before by the present inhabitants. On this surface, from fifty to one hundred feet and several hundred yards long, inscriptions have been made, such as are ascribed to a race which densely populated the country before the advent of the recent Indian tribes. It is possible to conjecture that the clearing of forests by an agricultural race may have brought about the condition now existing, a long interval of neglected culture and forest growth having since intervened," Nine years ago at a meeting of the International Congress of Land and Forest Culturists held in Vienna, it was shown that the Rhine, the Elbe, and the Oder were all shallower than they had been in the past, and it was pointed out that this was directly traceable to the destruction of forests. And our last extract shall be from a paper read before the Royal Academy of Sciences at St. Petersburg, in January, 1876, and for which also we are indebted to Dr. Hough's report, "As a warning example, the author cites Palestine, Persia, Greece, Sicily and Spain, which countries are suffering on account of the devastation of their forests. To this list may be added a portion of southern Russia, where one hundred and fifty or two hundred years ago there existed large forests, now changed into naked plains where the hills are without water, and the population is forced to settle in the valleys. We may also mention the Volga and the Dnieper in Southern Russia, where the forests around their sources have been cleared to such an extent that in the middle and lower portions, where these two rivers, so important to the commerce of Russia, pass through a wholly cleared country, the high water reaches points never before attained when the upper forests were standing. Every one knows of the changes made yearly in the beds of these rivers by the floods, and the consequent inconvenience and even danger which these occasion to navigation. The fact is also generally known that the deep gulfs which in summer and winter are without water, become wild torrents after heavy rains, and in the melting of snows in spring, carrying with them acres of the finest soil. We believe that these evils would have appeared in less degree if the country adjoining these rivers had not been cleared of its woods." Nor does our author in this section of his report fail to insist upon and to illustrate how the cutting away of forests tends to produce great irregularity in the rain fall and to bring about torrential rains, which run off the surface of the ground from their very impetuosity, and carry with them the best of the soil. As coal is brought more and more into ordinary and general use in this country, and the consequent necessity to burn wood as fuel is lessened, we may hope to see some restoration of the forests and of the seasons to something of the regularity observed in regard to them for some years after the landing of the British settlers.

CONSERVATIVE FORESTRY.

A correspondent of the *Northwestern Lumberman* speaking of a projected railroad says:—I mention this enterprise again particularly because it is the initiative that is bound to open up the Adirondack timber region in a way it was never before. Other railroads will be built. The Adirondack Company's road, projected from Saratoga north through these wilds, and to strike the St. Lawrence at some point, is now under a management that is likely to carry the project to completion. It would be a pity if the western craze for cleaning up stumpage should ever get hold of the Adirondack woods, because the country is nearly worthless for agricultural purposes, and should be everlastingly preserved for timber growing. The Racket river lumbermen are right in one thing, that of economizing their standing timber. While a little more enterprise in developing the hardwood utilization and the hemlock wealth of the region would be commendable, there is but little doubt that the spruce is being handled wiseley by the present method. Be this as it may, when capital becomes interested in the Adirondack forests they will melt away like grain before the sickle of the reaping mackine, and the men who now advocate the "North Woods" for a state park will be sorry by and by that they did not persist in it more strongly and persistently. The cutting away of the Adirondack woods would be a great damage to the surrounding country, no doubt, on account of the effect it would have on the streams of the region. Already they carry less water than formerly, in the summer after the spring flush has passed off. Were the woods cleaed up entirely, or much land denuded of trees, the effect would be to reduce the volume of water in the streams still more.

FOREST GROWING.

That the great prairies of the Canadian Northwest were at one time covered with forests has been proved beyond a doubt, and a discussion is now taking place all along the line concerning the possibility of repairing the ravages created by fire from heaven or the careless hand of the hunter. Gentlemen who, like U. S. Consul Taylor, have devoted much attention and study to the subject are perfectly satisfied that no serious obstacles stand in the way of ameliorating the climate and ministering to the necessities of the country by forest growing. It may be of service to farmers who intend to make experiments to know that the standard work upon the subject is "The Forester," a practical treatise on the planting, rearing and general management of forest trees. A fifth edition almost entirely re-written, has just been issued by Blackwood & Sons, the British publishers. The work is written by Mr. James Brown, Inspector of Woods and Forests, Port Elgin, Ontario, assisted by his son, Mr. George E. Brown, forester, Cumloden, Newton Stewart, N. B. In a review of the edition, the *Farmer's Gazette*, an Irish Agricultural paper of high standing, says that there is no other book of its kind published in the English language so comprehensive and complete, so practical and so satisfying, or so calculated to meet the wants and requirements of all engaged or interested in planting or having to do with woodlands or woodland work, as is this valuable and generally recognized standard work. The *Gazette*, in the course of its ably written review, has something to say of the value of tree planting to the farmer and gardener, for transcribing which to the columns of the *Times* from such a high authority no apology is needed: "In the improvement of farms, judicious tree planting is calculated to be of the highest service. In the reclamation and improvement of waste lands it is calculated to play an all-important part, and the attempt to improve such without planting to afford shelter, is sure to be a failure. A knowledge of trees and planting should not, therefore, be ignored by the farmer. It is nearly as indispensible to the better class of gardener as it is to the professional forester, the head gardener in places of moderate extent having mostly to combine the care of woods with his other duties."—*Wiunipeg Times.*

SEIZURE OF LOGS.

For a series of years there has been more or less dissatisfaction at the way the assessments have been made by the Tittabawassee Boom Company, and last week a suit in attachment was begun to test its validity. The Boom company has been in the habit of requiring so much per M. feet for booming and rafting the logs, and at the close of the season of allowing a rebate to the owners of logs rafted. This has caused the dissatisfaction, some holding that the company had no right to fix the price of handling logs higher than was absolutely necessary. Edmond Hall, of Detroit, has a large quantity of logs in the river and refused to pay the regular assessment. He offered, however, to pay the amount of actual cost of booming, and tendered the same, which was refused, and the company also refused to deliver Hall's logs. To test his rights, Hall caused all his logs to be replevined, and yesterday the sheriff was busy visiting the boom and taking Hall's logs into his custody. The outcome of the suit will be watched with great interest. Edgett & Brooks are the attorneys for Hall, and John Moore for the boom company.—*Saginaw Herald.*

TREE PLANTING.

A great deal has been said and written on the subject of tree planting, and suggestions "as thick as blackberries" have been advanced in regard to the best methods to be adopted, and the kinds of trees that are the most likely to prove remunerative because of quick growth and the value of timber. The government has even adopted measures to ensure timber growth on the prairies of the great west by accepting as remuneration for the land taken up by the settler an affidavit to the effect that he has a certain number of trees under cultivation on his land. While all these suggestions are worthy of consideration, and each may be possessed of considerable merit from its peculiar standpoint, yet there is ordinarily a serious impediment, so far as tree planting is concerned. The young trees before being planted cost quite a considerable sum of money, which very often puts them beyond the reach of the settler whose capital is generally his bare hands and plucky determination. There is one view of this subject, however, which has as yet received no consideration, and which appears quite feasible from a superficial consideration at least. It is nothing less than this for the government to take hold of this subject itself, through a "forestry department," the principal duties of which shall be tree planting on the public domain. The trees thus planted would certainly enhance the value of the lands to a much greater extent than the cost, and would be annually increasing in value as the years passed by, and any person purposing settlement would very willingly pay the increased cost. This would also put the lands within the reach of the settler who was devoid of capital, as he would thereby be enabled to attend strictly to the agricultural development of the land; and the surplus value of the crops, over and above what might be absolutely necessary for the support of himself and family, could be applied to the remuneration of the government for its investment. If a few of the millions of dollars annually squandered by the government in appropriations of a very doubtful character, to say the least, were expended in the direction indicated, it would tend very much to the solution of the problem which is bothering the brains of many of our best citizens, viz.: forest production. Besides the climatic considerations involved are of inestimable value, and absolutely beyond the range of computation.—*Lumberman's Gazette.*

CANADA AND THE UNITED STATES.

The Chicago *Northwestern Lumberman* says:—At the time a representation of Chicago lumbermen appeared before the United States tariff commission at the Grand Pacific Hotel, this city, considerable was said about the low rate of wages in Canada as a reason why the lumber tariff should be abolished. Mr. Van Schaick alluded to it in strong terms, and asserted that there was so much difference between the cheap labour of Canada and the comparatively high rate of wages in the States, that the removal of the duty on lumber would make it very hard, if not impossible, for the lumber producers of this country to compete with those of the Dominion. The argument would have been a strong one if it had any basis in fact. But the truth is that since the Manitoba boom began, labor in Canada has been neither plenty nor cheap. A representative of the *Lumberman* was lately in Ontario, and was informed by the best authority that the supply of labour was positively not equal to the demand in that province, and that leading industries have been considerably crippled the past season because of that fact. It was also stated that the operators in logging camps and mills have been unable readily to obtain all the help they have required this season. This scarcity of men has enhanced wages, which are nearly or quite double what they were two or three years ago. The truth is, a great industrial change has come over the Dominion, on account of the opening up of the new North West to settlement, and the building of the Canada Pacific road, and it will not do hereafter to judge of the tariff or any other question affecting our relations with the Dominion by old time standards. The Canada of the future is to be a very different thing from that of the past.

Polished Woods.

Black woods have come into great demand, and are growing in popularity. Ebony is imitated and excelled by a charcoal polishing process, which of course adds to the demand for other woods than ebony. Carefully selected woods of close and compact grain are used, and carefully polished, a chemical process quite complicated being followed, and when finished the woods have a dead black color, sharp, clear-cut edges, smooth surface, and apparently the density of ebony. The polished wood is held to be more serviceable than ebony, and will not tarnish like gilding, or grow yellow like woods that are not so polished, while it is always a neat finish, agreeing happily with the other decorative elements.

THE construction of the branch of the Canada Atlantic Railway to the Chaudiere lumber yards is being rapidly pushed forward.

A LONDON Druggist says: "during the many years I have been in the drug business, I have never had a medicine that gave such general satisfaction, or for which there was such a large sale, as there is for Mack's Magnetic Medicine, advertised in another column of your paper."

MONTREAL NOTES.

A Montreal correspondent of the London *Free Press* says :—The export trade in deals and and lumber continues fairly active, and the wind-up of the season will see an unusually large increase in the exports from this port upon those of the previous year. There are now loading with lumber for South American ports, the barques Capt. Strathay, Ameer, Piskataqua, Eleaner, Edina, G. W. Halls, and Joy, with 3,000,000 feet. The sailing vessels, Ida, Cathella, Charles E. Robinson, and James L. Harway, are chartered to follow with lumber for South America. The barques now loading with deals for U. K. Ports are the Fida and Twee Zuesters, the Latona, Milo and Agnes, have been chartered to follow. The Excelsior goes to Quebec to load. Freight engagements for lumber are reported $16 to $16.50 to River Platte, and deals at 65s to 75s, steam and sail to U. K. ports. The local trade in lumber is fair for the season. It would, however, be much larger at present were it not for the fact that most of the stocks of dry lumber have run out, and the recent arrivals have been too green to go into immediate consumption. A good demand exists for pine on American account, and a large business is expected between Ottawa and American ports this season in that kind of wood. Prices here remain unchanged. A good export movement is still reported, and freights are quoted at 67s 6d to 70s. for deals per steamer to Liverpool, while lumber charters to South American ports are quoted at $15 to $16 by sail.

AN IMPORTANT PUBLICATION.

The *Northwestern Lumberman* of Chicago is now engaged in the compilation of a new Directory of all the Saw Mills in the United States and Dominion of Canada, which stupendous undertaking it expects to have completed in December next. The event will be signalized by the publication in January, 1883, of a mammoth extra number of the *Lumberman* which, its publishers claim, will be the largest single copy of any trade journal that has ever been published ; it will contain about 200 pages, and it is now announced that an edition of thirty thousand copies will be printed for distribution among lumber and mill men all over the world. An edition of thirty thousand was first announced, but the publishers assure us that the number of saw mills developed by their canvass thus far, so greatly exceeds their expectation that the extra ten thousand copies will be required to cover the ground over which they intend to distribute this mammoth number. Besides the list of saw mills, which will be printed in full, this extra will contain the *Lumbermam's* Tenth Annual Review of the White Pine Lumber and Shingle Product of the North West, giving the production in detail of each saw and shingle mill, with comparative statements, showing the amounts of lumber and shingles monufactured each season for ten years, with stocks of logs and lumber carried over at the close of each season, etc. It will also contain carefully drawn plans, elevations and specifications for the construction of model saw and plaining mills, showing all the improvements made in mill architecture, construction and arrangement of machinery, with illustrations of all the latest improvements in the way of machines for sawing and dressing lumber. The new Directory will also be published in book form, and besides the name and post office address of the operator of each mill, will give its average daily capacity, whether run by steam or water power, and the kind of lumber manufactured. The list will be arranged in alphabetical order by states, territories and provinces, with the towns also arranged alphabetically in each. The price of the book has not yet been fixed, but will be announced in due time ; advertisers who desire to avail themselves of the opportunity to reach all the saw-mills at once, presented by the *Lumberman's* Mammoth Extra, will do well to secure space at an early date.

It is very seldom indeed that the water in the Ottawa is observed so high at this season of the year as it is at present, although it is beginning to fall slightly. Shipping operations were carried on to an unprecedented extent all summer owing to the good supply of water.

RINGS ON TREES.

An interesting observation on tree rings is recorded by Prof. Bachelart in La Nature during a visit to the ruins of Palenque, Mexico, in 1859. M. Charnay caused all the trees that hid the facade of one of the pyramids of the palace to be cut down. On a second visit, in 1880, he cut the trees that had grown since 1859, and he remarked that all of them had a number of concentric circles greatly superior to their age. The oldest could only have been twenty-two years of age, but on a section of one of them he counted 250 circles ; the tree was 60 to 65 ctm. in diameter. A shrub, 18 months old at most, had 18 concentric circles. M. Charnay found the case repeated in every species and in trees of all sizes. He concluded that in a hot and moist climate, where nature is never at rest, it may produce, not one circle a year, as with us, but one a month. The age of a monument has often been calculated from that of trees that have grown on its ruins. For Palenque, M. Larainzar calculated 1,700 years, having counted 1,700 rings in a tree. M. Charney's observations requires the number to be cut down to 150 or 200 years making a considerable difference. 1,500 years. Prof. Bachelart asks whether M. Charney took account of certain colored rings which some tropical trees present in cross section, and which are to be distinguished from the annual circles.

Messrs. Powell & O'Neil have sold and will manufacture and deliver in logs on Muskoka Bay to the Georgian Bay Lumber Company all their timber situated in the neighbourhood of Huntsville.

The Deseronto correspondent of the Belleville *Ontario* says :—A strong force of men and horses have been employed lately in hauling out large quantities of logs for the ponds, and piling them up for winter operations at the Cedar Mill. Some additions to that extensive establishment are already in progress. 1168 railway ties were cut in one day lately in the Cedar Mill, and an average of over 1000 are daily turned out—not bad work for one saw.

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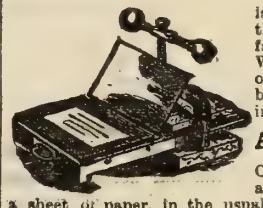

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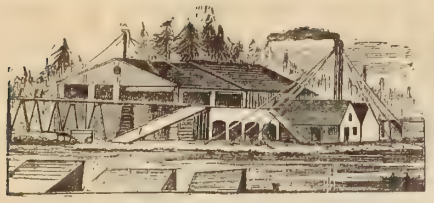

THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. OCT. 2, 1882.

J. B. CHARLESON, of Quebec, has purchased 1,800 acres (6,000,000 feet) of spruce timber stumpage from Lucius Packard, of Auburn, Me. The land is situated in the township of Stoke, on Windsor river.

FIFTY-TWO cars loaded with hemlock bark on a recent Monday stood on the track at Ludington, Mich., awaiting shipment across the lake. It is said that the hemlock forests in that part of the state are being sacrificed for bark.

FOREST fires are scattered through Maine. About six square miles of the best timber land on Deer Island, near Calais, were burned over. Another fire was started in Dayton, and 76 acres of plain and woodland was burned over. Other fires are reported.

IT is estimated that during the last three months 100,000 cords of bark have been taken from the trees in the northwestern part of Pennsylvania, and 120,000 feet of lumber has been placed on the market. Wholesale slashing of forests has been going on on in Erie, Warren, McKeen, Elk, Cameron, and Clinton counties. Men who were born and raised as lumbermen say they never before knew the like of it.

THE *Northwestern Lumberman* says:—It has been urged that the native pine forests in New England may easily be restored to a dignified importance by a systematic effort. All over this region are found great tracts of light soil, on plain and hillside, that is not worth cultivating for farm products, but which can be made available for pine growing. Experiments recently made at the Shaker settlement at Enfield, Conn., have had gratifying results, seed planted in sandy soil in 1869 having produced a dense growth of trees that are now 12 to 16 feet high. If there are conditions under which the growing of forests can result practically it is in such sections as that described above. Where the land is naturally adapted to the growth of timber more than for other purposes, it is strange that efforts in the direction of tree-growing were not made earlier, so that results could have been had at a time when they would be the most acceptable.

IN the treeless region between Ainsworth and Sprague, W. T., 1,000 young trees have been set out, fenced and boxed, along the line of track, and the most of them are doing well.

THE *Northwestern Lumberman* says:—Lumbering in Kewatin, Canada, will be carried forward on an extensive scale next winter, stimulated by the growing demand in Manitoba. R. J. Short has some large contracts on hand, and Hugh Sutherland intends to lumber extensively. D. Mather, of the Kewatin mills, will do a heavy business.

SAW DUST.

The Minneapolis *Tribune* calls attention to the urgent necessity of some legislation to abate the crying sawdust nuisance by which the channel of the upper Mississippi is being choked up much faster than all the government dredge boats can clear it out. The *Tribune* says that "three hundred thousand cords of sawdust are annually deposited in the Mississippi river from the saws of the Minneapolis mills." The injury done to commerce and the expense caused to the government by this accumulation of debris, are almost incalculable. The sawdust is dumped recklessly into the river, floats for some distance below and finally sinking, forms into bars that cause infinite annoyance and danger to the steamboat men. All this trouble and peril could be easily avoided by a law compelling the saw mills of Minneapolis and all points above, to consume their dust in their own fires. It is of but little use for Congress to appropriate money for the improvement of the river from below as long as the saw mills continue to fill it up from above.—*Lumberman's Gazette.*

HEMLOCK BARK.

There is a great scarcity of barks in many of the tanning districts of Canada, which has already caused several tanneries in Ontario to close, and in other parts where it is obtainable the price has advanced considerably, thus adding to the cost of manufacturing leather, but what now concerns our tanners most is the actual scarcity of the bark supply, owing to the large quantities which have of late years been exported to the United States. It is now beginning to be realized that our hemlock forests are not inexhaustible, and that one of our foremost manufacturing interests is liable to suffer from it at no distant day. We have previously referred to the heavy drain which the American demand has entailed upon the hemlock resources of this province, and some of the leading men in the leather trade here have expressed concern as to the effect which the rapid exhaustion of our bark supply will soon have upon the tanning industry of the Dominion. The price of bark is up to $7.00 per cord in the Eastern Townships, where only a few years ago it could be bought for about $3.50. The American market for bark is also advancing through the shrinkage in the Canadian supply, which they have been drawing upon for years past, and at the same time have preserved their own forests.—*Montreal Gazette.*

NORWAY AND SOUTHERN PINE TESTS.

Reference is made in a recent number of the *Railway Gazette* to tests of the relative strength of Norway and southern pine for car building purposes. At a meeting of the Master Car Builders' Association, Mr. Davenport, of the Erie works, exhibited some specimens of the two kinds of pine, which had been submitted to tests on a steelyard suspended in a frame for that special purpose. There were five specimens of each variety, each one inch square and 11½ inches between bearing points. The pressure was applied in the centre with the following results of breaking strain: southern pine, 500, 510, 500, 490, 490, and 530 pounds; average, 506 pounds. Norway, 620, 645, 730, 650 and 630 pounds; average, 655 pounds.

Mr. Bissel, of the Barney & Smith company, of Dayton, Ohio, also had some specimens tested. The following is a report of the tests: A number of specimens of Norway and southern pine were dressed exactly an inch square, and these were broken in a testing machine by placing them on bearings one foot apart and the weight in the centre. The southern pine had been air seasoned for two years and upwards, the Norway 12 to 16 months. The weakest southern broke at 726 pounds, the strongest at 1,102 pounds; average of eight specimens of southern pine pine 904 pounds. The weakest Norway broke at 501 pounds, the strongest at 790 pounds; average of ten specimens of Norway, 702 pounds, showing the southern pine to be 28.7 per cent. stronger than Norway, and that a southern pine sill of 4x8 inches dimensions is equivalent to a Norway sill of 5¼x8 inches, with the further advantage in favour of the southern pine that it can be got much freer of knots, and consequently stronger in comparison than these figures show, which are based on clear timber.

THE EBB AND FLOW OF PRICES.

The more the season advances the greater the difficulty becomes of forming a judgment as to the position of the trade at the end of it; for never perhaps were opinions on that point more equally divided nor more stoutly defended. You meet an influential man in the trade, perhaps representing a well-known Swedish stock and mills, who, on being interrogated as to the prospects of the fall trade shakes his head and laments that things are looking bad for the shippers just now; the great east coast ports are too well supplied to increase their engagements for this year, and small vessels are difficult to obtain for fulfilling such orders as are still in hand, for places of less note. He fears there will be a great glut in London, as "those Finland fellows will send their goods forward, whether wanted or not," and that the spring trade is likely to open badly for the shippers. Scarcely have you time to ponder over this view of the situation when you run against the representative member of an influential Canadian house, who, on your suggesting that things do not look very well for the maintenance of prices, expresses his surprise at your innocence. "My dear fellow, look at the Canadian freights, what a spring they have taken—70s. to Liverpool and Glasgow! Do you think merchants would pay that if they did not want the goods? Take my word for it, yellow pine deals will fetch at the public sales 10 to 15 per cent. more this fall than they did last year." And he adds, perhaps, "I only wish I had twice as much at market as I have now."

Thus each argues from his own point of view. Sweden, up to the end of July, with heavy stocks remaining on hand, had already shipped 42 per cent. more this year than last in sawn and manfactured wood and more than 50 per cent. of square timber. Canada, on the contrary, has shipped, on the whole, say 15 to 20 per cent. less than, date for date, was done last year, and is looking forward to a brisk demand for next year from the moment the navigation opens.

If we look around upon the trade at home, and compare the reports, it is equally difficult to come to any definite conclusion. Quebec wide pine deals of first quality fetched at the sale by Singleton, Dunn & Co., on the 29th Aug., at Greenosk, from £24 to £28 per standard, according to their width, the smallest price being for 12 ft. 15×3, and the highest 3s. 4½d. per cubic ft. (equal to £27 16s. 10½d. per standard) for 12 ft. 19-20×3, while fourth yellow pine deals, 12 ft. 11×3, fetched within a fraction of £8. But if we look at the prices which yellow pine fetched at the last London sales, we shall see that, out of a large assortment offered on both days, not one lot went as high as £20 per standard. 1st bright Quebec 12 to 14 ft. 3×9 and 10 (good sizes) fetched but £15. The best price obtained was for some lower port (Bathurst) 1st quality 10 to 20 ft. 3×14 to 18, which went as high as £49 10s., while third quality of similar dimensions brought no more than £8, and other good useful sizes and lengths of this quality were sold at £2 a standard less, and 4ths 9 to 18ft. 3×11 to 16 in. were knocked down at £5. Take, say, only £4 out of this for freight, landing charges, rent and broker's commission (freight alone would now be £3 10s.), and what return does the importer get who paid probably £3 10s. to £4 for them free on board at the shipping port?

With these things passing before our eyes, how can we justify a belief that the general market is improving and prices getting firmer? What is true of one place or one kind of wood is false, it may be, if applied to another. Glasgow, for instance, is a good market to sell yellow pine at this time, but by the test of public sale London is more favourable for those who have occasion to buy it. Nor can we say very much in favor of the spruce trade, which, though better on the whole than it has been, is not steady at any measurable advance. Quebec 1st quality regular sizes (12 and 13 ft. 3×9 and 11) at £10 5s. can hardly be considered other than cheap, for they fetched that in the bad year 1879. St. John and Miramichi spruce are doing better in the London market *pro rata*, as they used to be about 40s. to 50s. a standard behind the Quebec prices, and now approach them much nearer; but lower port batten sizes have been recently sold at prices varying from £5 5s. to £7 10s., according to quality, at the public sales in London. On the Clyde, pitch pine planks appear to be very cheap. 12 to 30 ft 9 to 13×3 to. 5in. at 1s. 0¾d. per cubic foot, at the sale aforesaid at Greenock, is lower than anything we have heard of in London—£8 15s. 4d. per Petersburg standard, and while this kind of wood can be had so reasonably it will be difficult to force up the prices of other kinds, especially while the importation continues on such an abundant scale.

Our friends across the Atlantic, that is on the Canadian side, wonder why they cannot get better prices here for their specialities of pine and spruce when they are less plentiful than they were last year and the shippers have to pay more for them; in fact the trade is annually warned that they will have to pay dearer for these goods when the next season comes around; but buyers on this side, when they have to go to market, find that they can still supply themselves on as easy terms as ever. That there is no appreciable advance on yellow pine in the London market this season has already been shown, yet the shipping from Quebec, had fallen short in comparison of last year up to the 15th of August by more than 10,000 tons, which would represent 13,000 to 14,000 loads of timber. Evidently, therefore, we ought to find those goods on the rise here generally, and doubtless it would be so were it not for the constant influx of pitch pine to this country, which, though surpassed in utility for special purposes by many other kinds of fir, is an excellent substitute for them all. Its cheapness is a standing difficulty in the way of woods that are preferred to it realizing any thing more than a very moderate profit, because any serious advance brings pitch pine into question, and it is then found that Canadian pine is not so indispensible as it was formerly thought.

That this is the actual position of the trade is manifest in the large importation of pitch pine to Liverpool and Glasgow, that being the only stock that is seriously in access of last year. Very little doubt can be entertained but that Canadian pine would almost fetch its own price within any not very unreasonable limit, and nothing shows more the esteem in which it is held, where first-class joiners' work is in constant requisition, than to see best yellow pine deals fetching, say, on the average of the most useful sizes, £25 per standard, while the same quality of pitch pine, in dimensions scarcely less useful, not requiring to be classified on account of general good mercantile quality, could be had at the same sale for less than £9. Still there is the fact that for every other use but that which requires choice joinery pitch pine offers a strong opposition, not only to Canadian but to Swedish and Baltic timber as well, and while it contiues to be sent into this country so plentifully, and at a price within everybody's reach, it will be very difficult to establish any advance upon the building timber of other kinds either in Northern Europe or America.

If the f. o. b. rates that have ruled for this season, and that they are endeavouring to maintain still in Sweden with some misgivings, as may be gathered from our Stockholm letter in last number, can be continued next year, it is as much as the shippers can wish for, and in respect of the home trade, let it be as good as it will, we do not see that there are any grounds for expecting a general rise of prices while the supply is so ample and the prospects of a large increase not by any means fading away.—*Timber Trades Journal.*

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to Sept. 22 :—

	1880.	1881.	1882.
Waney White Pine..	1,902,988	1,967,310	2,135,259
White Pine.....	3,684,256	4,827,905	7,023,350
Red Pine.....	840,890	1,762,594	1,328,803
Oak.....	1,256,798	2,406,731	1,015,523
Elm.....	892,054	935,612	576,470
Ash.....	227,872	377,615	213,518
Basswood.....	206	3,519	1,273
Butternut.....	627	2,930	2,585
Tamarac.....	22,435	24,327	8,234
Birch & Maple.....	555,874	140,826	263,812
Masts.....	4 pcs	25 pcs	33 pcs
Spars.....	23 pcs	— pcs	51 pcs
Std. Staves.....	16.4 3.15	317.7.0 7	315.0.3.25
W. I. Staves.....	260.0.0.22	332.1.3.2	1041.0.0.19
Brl. Staves.....	.....	.....	42.8.1.17

JAMES PATTON,
Supervisor of Cullers.

Quebec, Sept. 22.

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The Engine Boilers and all the Machinery in an Extensive Sash, Door and Furniture Factory for Sale, separately or in bulk. Catalogue on application to

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Canal Basin, Ottawa

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A Syndicate of Limit Holders
Represented by the Undersigned, offers

FOR SALE
On the Upper Ottawa,

600 Square Miles Virgin Forest of Pine, comprising 13 Licenses, nearly all Front Limits, on the main stream of the River Ottawa itself, on reasonable terms.

The Proprietors will sell either the whole, or, if preferred, a part interest to Capitalists who will furnish the requisite means to work this Valuable Property on an extensive scale.

The extension of the Canadian Pacific Railway westward towards Manitoba, the establishment of steamboats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subsiding streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

☞ Full particulars will be promptly sent on application to

E. J. CHARLTON,
QUEBEC, P. O.

17L6

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OF VALUABLE
TIMBER LIMITS,
Situated on the Rivers Ottawa, Gatineau and Jean de Terre.

The following limits, if not previously disposed of, will be offered for Sale at PUBLIC AUCTION,

At the RUSSELL HOUSE, OTTAWA, on Thursday, Nov. 30th next,

AT TWO O'CLOCK P. M.

				Miles.
River Gatineau,—License Number		176	for 1881-2—	46½
do	do	177	do	50
do	do	178	do	50
do	do	179	do	50
do	do	180	do	50
do	do	181	do	50
do and Ottawa	do	182	do	28¾
do and Jean de Terre		183	do	48
do	do	184	do	46
do	do	185	do	42
do	do	186	do	50
do	do	187	do	50
do	do	188	do	18
do	do	189	do	46 9-10
do	do	190	do	50
do	do	191	do	50
do	do	192	do	50
do	do	193	do	31½
do	do	194	do	50
do	do	195	do	39 6-10
do	do	196	do	21
do	do	197	do	50

Terms and conditions made known at time of Sale. Further information can be obtained by application to R. C. W. MacCuaig, Auctioneer, or Crown Timber Offices, Ottawa.

R. C. W. MacCUAIG,
Auctioneer and Real Estate Agent,
58 Sparks Street.

Ottawa, 1st September, 1882. 4L19

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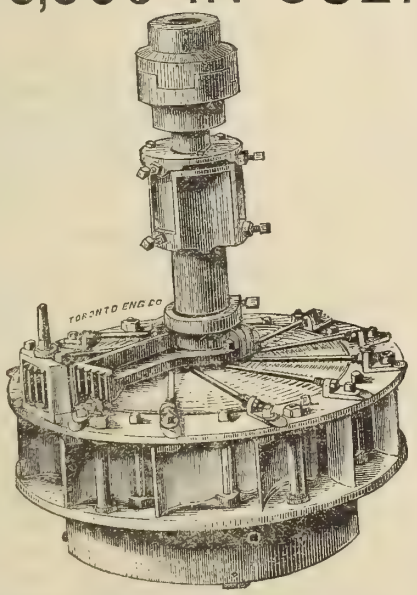

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All Sizes of Stationary and Portable Engines and Boilers, Shafting, Pulleys, Hangers, Gearing, latest improved English and American Gangs.

The Stearn's Circular Saw Mills with Fractional Head Blocks and King of Dogs—this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill. Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Specialty.

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Wholesale Lumber Dealers
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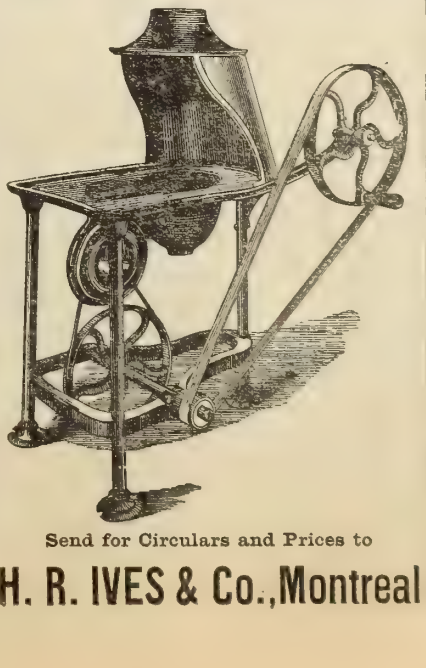

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CHIPS FROM DULUTH.

Captain Ira Holt is in the city, having arrived on Monday. He is recently from Duluth, and reports things booming both there and at Superior City. It is the Captain's opinion, based on statements received from parties who have been in the woods in that region continually, that there is an almost limitless supply of pine there, more than the Saginaw valley ever had. Already fifteen mills are in operation at Duluth, and more are to go up this fall.

In the streams there is, taking the season through, a far better chance to drive logs than here, and not a raft has been lost this season. Lumber is selling for $20 to $45 per M, and the demand is so great that it is impossible to supply it. All lumber is shipped by rail and can't be cut as fast as it is wanted in the northwest at double the price we get here. Duluth has at present three elevators and only a short time ago parties were in Superior City for the purpose of building an elevator, flouring mill, having a capacity of 2,500 barrels of flour, and a saw mill, all combined. Those two cities will eventually, the captain thinks, be one, and will undoubtedly form the great reservoir into which the vast grain supplies of the limitless northwest will be poured. Immense docks, as we have before stated, are being constructed, and the Omaha, Chicago & Superior City railroad, forming an air line to Chicago has just been, or is about to be completed.

He says that Duluth is never without a delegation from Saginaw or Bay City. No sooner has one left than another arrives, and often two or three are on hand at the same time.—*Lumberman's Gazette.*.

MIDLAND, ONT.

The *Free Press* says :—Midland with its six saw mills, and two sash and door factories is indeed ahead of almost any town in the Dominion in point of importance as a lumber manufacturing centre, and as such, a medium through which we can all air our intellects, if we have any, is almost indispensable.

Lumber, thanks to the general activity of trade and bountiful harvest, remains firm at prices lucrative to mill men and dealer alike.

At this end there will not be the quantity cut there was last year, not from any scarcity of timber, but owing to the lateness of the mills starting, together with so limited a supply of men as to preclude almost the possibility of running the mills at night.

Every day brings along its buyers from the States and North-West—those from the former looking almost exclusively for the good end, whilst the latter has been and must for sometime remain a good opening for the coarser grades.

Notwithstanding the increased cost of getting out logs last winter, mill men as a rule have obtained remarkable good prices for their stocks.

The entire cut of this neighbourhood outside of Mr. J. M. Dollars' is controlled by Messrs. J. & F. N. Tennant, of Toronto, and represented here by their agent, Mr. Frank Weston.

Up to the present time there has been no great activity in shipping ; in fact, outside of what has gone by vessel to Duluth for points in the North-West, comparatively little has yet moved. Lath is higher than it has been for years, the supply not meeting the demand, and and shingles remain tolerably firm.

In consequence of the considerable amount of building going on here there continues quite an extensive local demand for all descriptions. Your readers, many of whom have been under the impression that they could not obtain what lumber they required for their respective buildings in consequence of dealers monopolizing the stock, may now take notice that arrangements have been made at the different mills whereby they can procure anything they want in either lumber, lath or shingles, on production of the "needful."

The respective cuts thus far for this season may be roughly summoned up as follows:—British Canadian Lumber and Timber Company (3 mills) about 12,000,000 feet ; Dollar's about 3,500,000 ; Chew Bro.'s, about 1,800,000 feet, in addition to which the McLeod & Cameron mill, across the bay, is turning out a lot of custom stuff in both lumber and shingles, creditable to themselves and useful to the local community. Messrs. Chew & Week, as extensive manufacturers of cedar and pine shingles, must not be overlooked. Frequently do we notice large schooners alongside their dock carrying off their million or so to Lake Superior as well as to western Canada points. We cannot yet report any particular move in shipping. It is thus far confined to an odd vessel load for Duluth and the west, together with a few car lots principally for the home market, but every day brings us nearer to the time when eastern yards, the stocks of which have fallen so low, must be replenished, and our western Canadian buyers be filling up for their winter farmers' trade.

QUEBEC.

The *Chronicle* says :—There has been unusual activity in our market, and some twelve to fourteen rafts of Ottawa timber are reported sold, at considerably better prices than were looked for some time ago.

Rafts of white pine of 50 to 55 feet average have been placed at twenty-nine to thirty-two cents, according to the quality and quantity of waney board in each. Smaller averages have been placed at eighteen and a-half to twenty-two and a-half cents for timber measuring from 35 to 45 feet. One raft containing ⅔rds waney, 20 inch, brought thirty-four and a-half cents.

Thistle & Carswell, of Ottawa, have sold all their square timber here for 33 cents per square foot. Mr. Richard Nagle has sold a small raft for 25 cents per square foot.

Red pine with the above rafts has been sold at 12½ to 17 cents, according to average and quality.

OAK.—We hear of no new transactions.

GLASGOW IMPORTS.

The *Timber Trades Journal* of Sept. 2nd, says :—The imports of Colonial American timber and of foreign wood to Clyde during the past week have been extremely light. The season's arrivals from Quebec to date, compared with those of corresponding period last year, show a marked falling off as regards log timber, the following being the particulars :

	1882.	*1881.*
Quebec waney boardwood	1,846	5,020
" yellow pine logs.	13,301	22,154
" red pine	3,532	4,373
" oak.....	3,203	4,599
" elm.....	409	3,151
" ash	296	1,740
" birch	807	1,628

The number of Quebec deals, however, imported during the current year show an increase, the figures being : 1882, 377,369 ; 1881, 271,630. Of lower port deals (St. John, N, B., &c.) the contrasted imports are: 1882, 332,995 ; 1881 577,530.

Deliveries of deals have been steadily going on of late, the number removed during last month from Yorkhill Yard alone being over 112,000.

FOREST AND FARM.

The Montreal *Herald* contains the following synopsis of the paper written for the Forestry Congress on "A Few Thoughts on the Necessity for a certain Portion of each Farm being left in Forest," by Dr. Hurlbert, of Ottawa.

"Upon a cursory view of this subject two thoughts are suggested, the one the economic and climatological value of forests, and the other beauty of landscape produced by the interchange of forests and groves with cultivated lands. The economic and climatological value of forests can scarcely be over-estimated. While they remain in their pristine state we know that rains are somewhat uniform ; after they have been cleared off we find the rains falling during the hot summer months. But the time between the existance of the forests in their primitive state and their entire destruction over vast areas is so great that the comparison is not easily made. Upon the first settlement of a country, pioneers find the forests in their way. They hew and hack and burn them as a nuisance. They must sow and reap their food plants. Hence there is no thought of the beauty or economic value of the forests. So impressed have the continental countries of Europe been with the deterioration of climate following the entire absence of forests, that, under the direction of commissioners of scientific men, the Governments have ordered the resetting of forest trees. Two conditions of climate have been found essential for the growth of forest trees—a temperature during the warm months of between 50 and 80 degrees Fahrenheit, and somewhat uniform summer rains. The entire absence of forests causes a diminution of the rainfall in the summer months, and this smaller quantity is quickly carried off, swelling the streams and leaving less in the ground than in forest lands to feed the springs. Hence the springs and smaller rivulets fail early in the summer. If, say one-fourth of each hundred acres were left in forests, the evils referred to would be much less. Often a portion of the farm is rocky, producing, however, the finest forest trees, but unsuitable for tillage. That part could be left in wood, in which state it would be more valuable than under culture. In all forest land the Government could make it a condition in every sale or grant, that a certain portion should be left and kept in forests ; and encouragement could be given to replant trees on those farms denuded of the pristine forests."

PUGET SOUND.

Mr. G. W. Bullene, a veteran draughtsman, 18 years on the Pacific coast, and late United States Inspector on Puget Sound, is enthusiastic in regard to the forest resources of the country. "We have on Puget Sound," he said, "the largest body of growing timber in America. There are no ice, snow or frost to interfere with the work of the loggers, and no stoppage of mills on account of low water or freshets. Logs of any required size are attainable every day in the year. Our tugs bring us logs from all parts of the Sound, and even from the British shore on the straits of Fuca. They traverse the Sound 50 miles south and 150 north. But there is an immense supply of good timber within a few miles of this mill ; though it is now more convenient and cheaper to harvest the forests near the coast line. By and by capital will come in and penetrate the forests with small railroads until the surrounding country is gradually cleared, making room for the farmer and stockman. Don't you believe anybody who tells you that these fir lands cannot be profitably cultivated. A large proportion of them is adapted to profitable culture. Acre for acre, the soil will compare favourably in the valleys and rolling lands with that of New England and New York. But agriculture in this country is still in embryo, and in the meantime the great saw mills are aiding to solve the problem by clearing off the vast forests and rendering the land fit for settlement. The world furnishes the market for our lumber, and there is no land where it is not welcomed."

Stopping Fires.

A correspondent writing about the Sandwich fire, which spread over thousands of acres, gives the following suggestions : "Remember that a pail of water and a broom or a green bough are good implements with which to check a running fire on the ground. Wet the broom and sweep out the fire. Where water is scarce, in a case of this kind, a little may be used to good advantage in this way. Sand is sometimes used to check a running fire. At one time a wet blanket was found to do good service. At another time a garden sprinkler was used successfully. At one time where a collection of people were watching a bush fire, fearing to go near it, a resolute young man rushed in and the fire was subdued. Have presence of mind in such cases, and act promptly. It is said that more more wood and timber is destroyed by fire in this country than falls before the axe. It seems as though intelligence and prompt action might prevent a part of this wholesale loss of property, valuable in more than one respect."

A Continual Demand.

The London *Timber Trades Journal* says :—It is well that our friends on the other side should know that there are annually required a large number of whitewood or spruce deals for hat-box making and many other purposes, which are wanted, not only absolutely free from knot, but also perfectly straight in the grain and of a free character. For such wood—and the size is hardly a matter of consequence—there is a continual demand, and high prices can be realized. In some parts such deals are known as "shavers."

ARRIVED AT QUEBEC.

The Quebec *Chronicle* gives the following list of rafts, &c., arrived :—

Sept 9.—D D Calvin & Co., pine, Sharples Cove.

B C Lumbering & Timber Co., white pine, &c., St Michael's Cove.

David Moore, white, waney and red pine, Sillery.

Sept 11.— David Mohr (2), white, waney, and red pine, Sillery.

British Canadian Lumber & Timber Co. waney and red pine, St Michael's cove.

Sept 12.—British Canadian Timber and Lumber Company, white, waney and red pine, St. Michael's cove.

A Novel Cross-Cut Saw.

The Alpena, Mich., *Pioneer* thus describes a new way of sawing arranged by Fletcher, Pack & Co., at that place :—"They have a saw arranged very conveniently for cutting logs into proper lengths for bill stuff. It is a circular, at the corner of the mill projecting over the water so low and close to it as to be used in cutting the logs as they lie in the water. The log is floated under the saw, and the proper length found by a scale on the platform, then by pulling a rope the log is held while the saw drops and cuts it off. The operation is neatly and quickly done and is a great improvement over cross-cut saws. This is probably the only saw of the kind for this purpose in existance, being the invention of Mr. C. L. Kimball, a member of the firm."

Water from Wood.

By thrusting the ends of green scrub wood—"mallee scrub"—in the fire, and catching the sap driven out at the other end in a bark trough, an Australian supplied himself with water and saved his life while crossing in a waterless region. He says that a dozen mallee sticks, 4 feet long and two or three inches in diameter, would give a pint of water in an hour, and suggests that the same device may possibly be found of vital importance to other bush-rangers and travellers in arid regions.

The Stranger in London.

That the great City will ere long be hardly recognisable by its former denizens, all the world has heard. The visitor passing up the Thames now finds his eye gratified by the many handsome edifices recently erected. As he reaches the famous Victoria Embankment, there rises over him on the right hand the new *Times* office, and on the left hand the new tower-crowned works of Messrs. James Epps & Co., both phases of Italian architecture. It may be said that these two buildings are types of the far reaching business energy of the nineteenth century, for it has resulted from such means that these two establishments have brought themselves to the fore, and that the annual issue of each has come to be estimated by millions. During the last year, the number of copies of the *Times* issued is estimated at 16,276,000, while the number of packets of Epps' Cocoa sent of in the same period is computed at 14,749,695. The latter is a large total, when it is borne in mind that in 1830 the consumption of Cocoa throughout the whole kingdom was but 425,382 lbs., there then existing no preparation of it such as this, which by the simple addition of boiling water would yield a palatable drink. Truly time may be said to work many changes.

As a cure for all diseases of the Lungs Downs' Elixir has no equal.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

ONE dose of Baxter's Mandrake Bitters will relieve Sick Headache. One bottle effects a cure. Price 25c. per bottle.

I. F. SMITH, Druggist, of Dunville, under date of June 1st, writes of Dr. Fowler's Extract of Wild Strawberry :—"It sells immensely, in fact has the largest sale during the summer of any patent medicine in stock," and adds that he can heartily recommend it to the public. The above named remedy is nature's grand cure for Cholera, Dysentery and all summer complaints.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopessa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopessa, the new remedy, of your druggist. A few doses will surprise you.

Chips.

A THOUSAND cords of poplar are being gotten out at St. Ignace for a Niagara Falls paper company.

THE last timber raft of the season left Ottawa for Quebec on Sept. 18th. It contained 185 cribs, and is owned by Mr. O. Latour.

A FEW days since a crew of fifty men was sent by J. A. Pearson & Son, from Saginaw, Mich., into the upper peninsula, the intention being to put in about 35,000,000 feet this winter.

THE Duluth *Lake Superior News* says:—It is said that there will be 1,000 men at work in the North Shore pine woods this winter. Already the lumbermen are begining their preparations for the fall and winter logging.

THE *Muskoka Herald* says that Messrs. Lassell & Jones have taken a large contract from the British American Lumber Company, which will occupy about three years before it is completed. It is estimated that there will be 20,000,000 feet in the limit.

The *Muskoka Herald* says:—The lumber firms are vigorously prosecuting the work of preparing for the season's cut, which promises to be even larger than that of last winter. A number of camps have already been started, and more are being equipped every day.

During the past year the Tennants, of Toronto, shipped 3,000,000, feet of lumber to Manitoba., and expect to forward 2,000,000 feet more. Nearly a million feet went by way of Chicago, but the larger portion was shipped by the Lake Superior and Duluth route.

THE *Monetary Times* says that at Lancaster, N. B., a woodenware factory has been put into operation by Mr. D. L. Richards, who is assisted we understand, by Mr. J. V. Thurgar of St. John. The woods used in the factory are mahogany, black walnut, white wood, cherry, ash and birch.

THE Northwestern Lumber Company, of Eau Claire, Wis., is piling lumber at the rate of 100,000 feet per day, one river crew being retained to run a part of the product to the Hannibal, Mo., yards. More side-tracks have been put in, and the company has on hand logs enough to run till a freeze up.

L. B. HODGES, who has charge of the tree planting interests of the Northern Pacific Railway Company, has gone to Dakota to resume operations for fall planting. He proposes to plant out, before winter closes in, 2,000,000 trees. Those hitherto planted passed through the hot season without serious loss.

FIVE Menominee river companies have decided to cut a wagon road along the Michigamme at once, the intention being to cut some 30,000,000 feet of logs on that stream this winter, and camps are now being located. This is the section which was damaged by fire some time ago, and the timber will be put in as rapidly as possible.

THE Cincinnati *Commercial* tells a big story of a big walnut tree. In 1864 an Indiana man, as the story runs, bought the tree for one dollar and subsequently sold it for sixty-five dollars. The buyer sold it to a Cincinnati lumber dealer for $700; the Cincinnati dealer sold it to a New Yorker for $2,200, and he cut it up into veneering which he sold for $10,000.

The Kingston *British Whig* of Sept. 16th says:—The steamer Chieftain, on Thursday, was lying with a Port Hope raft off Nicholson's Island. The wind, veering around from the south to west, broke up the latter, and the timber drifted to the shore near Wellington. It can be recovered. Mr. W. McRossie had a raft of oak and pine broken up in the harbour by the gale. He will probably secure all the pine, but will lose some of the oak.

THE Ottawa *Citizen* says:—The Canadian Pacific Railway Company have made arrangements to run a mixed train for the special accommodation of lumbermen every Tuesday and Friday to Mattawa. It is highly pleasing to see the company using their utmost endeavours to meet with the requrements of the general public in every possible way, and this latest improvement will be a decided acquisition in supplying a want felt by the many lumbermen in Ottawa and vicinity.

THE Midland, Ont., *Free Press* says:—Our esteemed neighbour, Mr. W. Lummis, of Wye Mills, has decided not to confine himself solely to the manufacture and sale of lumber at his own mills, but enters the field as a dealer, having purchased an excellent little stock of J. & F. N, Tennant, of Toronto, and cut at Haddens mill, Foxmead. More power to his elbow.

THE Thunder Bay *Sentinel*, of Sept. 11th, says:—The Government Dock presented quite an animated appearance to-day. The steam barge Georgian arrived with a cargo of no less than 260,000 feet of lumber and shingles for Messrs. Graham and Horne, and a large raft of lumber of Mr. Carpenters was at the same time being unloaded which arrived this morning from Carp River.

THE Ottawa correspondent of the *Globe* says: A valuable farm and timber limits on Lake Temiscamingue, Montreal, and Waposse rivers was offered at auction on Tuesday afternoon, Sept. 19th. The licenses are 223, 224, and 225, of 1881, two comprising 104 square miles. The property was started at $21,000, and withdrawn at $41,000, the amount not having reached the upset price.

THE Montreal *Post* says:—Mr. Wm Little has been requested by several members of the American Forestry Congress to call a meeting of those who take an interest in the preservation of forests or planting of forest trees, to be held at Forestry Hall, 132 St. James Street Montreal on Wednesday, the 20th September, at 8 o'clock p.m. It is proposed to consider the practicability of establishing a provincial or Canadian association for the promotion of forestry interests.

A LARGE amount of lumber, largely white birch, is manufactured between Canton and Livermore, Me. At Canton Point, H. G. Thayer employs 20 hands in his saw mill and shook shop, and two miles from that point a similar establishment is run by Melvin Goff, who employs the same number of men. At Jay Bridge, Richmond & Thompson employ 50 hands in a turned wood box factory. They have a pay roll of $1,000 a month, and ship goods at the rate of $4,000 per month.

A correspondent of the Ottawa *Free Press*, says:—Mattawa is at present excited over the prospect of having two extensive saw mills built here by two of the leading lumbering firms of the Ottawa Valley, and it is no doubt a fine location for milling purposes. This is going to be an important place. Eight miles from here on the line of the C. P. R., near the confluence of Amable du Fond and Mattawa, Mr. Wm. Mackie, of Ottawa, is putting up a fine saw mill on the finest mill spot in the Dominion, and Mr. Jas. Bonfield, M. P. P., has just started a new mill at the same place.

The Belleville *Ontario* says:—The steamer Chieftain left Port Hope on Wednesday afternoon with a raft belonging to Messrs. Smith McDougall & Son, of that town, and containing five drams of oak and other timber. When between Nicholson's Island and Long Point the wind had a full sweep at the raft, and the result was that the fastenings parted and the sticks were in a few minutes scattered all over the lake. The raft, which was worth $100,000 was not insured, and is therefore a total loss. Of course some of the timber will be recovered, but it would cost almost as much as the timber is worth to collect it. The mishap is a very serious one.

The Parry Sound *Star* says:—The Messrs. Armstrong, of McKellar, have already three camps started, and intend to start five others soon. Active preparations are being made by all the lumber companies for the winter's work. Supplies are being shipped and camps established. The P. S. L. Co. are getting their camps in good shape. They intend to establish one near the cemetery, and expect to cut 1,500,000 feet of lumber within a short distance of this village. Those of our readers who imagine the pine around here is all cut will be surprised at this information. The shingle and planing mill of Midland and North Shore Lumber Company is now running. The P. S. L. Co. intend making extensive additions to their steam mill during the winter. Mr. W. McGown has just returned from the French River where he has been showing an American gentleman some limits north of that stream.

FOR THE BEST

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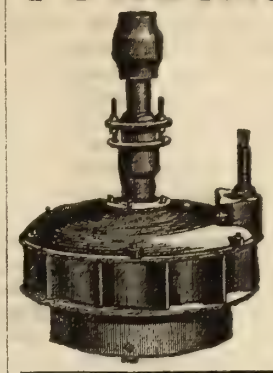

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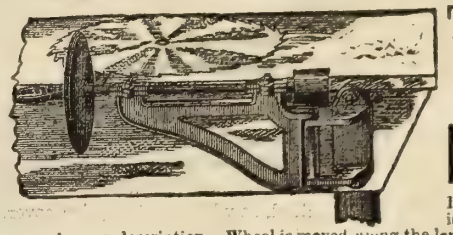

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Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Welsport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

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As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

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Market Reports.

MONTREAL.

From our own Correspondent.

Sept. 25.—A matter which ought to be of considerable interest to lumbermen all over the Province took place here last week, viz., the formation of a Forestry Association. A committee has been appointed to draw up rules, which will be submitted to a general meeting of all those interested during this week, particulars of which and a regular record of transactions we hope to furnish regularly to the readers of the LUMBERMAN. The demand for lumber here keeps fair, and is likely to continue during the season, this demand is chiefly kept up by the building trade who have been very busy. There has been quite a run on hardwood both local and from the United States, stocks of which here are in pretty fair order. Ottawa River freights are if anything inclined to be a little stiffer, as some of the forwarders have had considerable quantities of grain to carry. A good deal of lumber has still to be brought into the city, dealers are pretty well sold out and the winter supplies have still to be laid in. The quantity of lumber consumed on the wharf by the grain and cattle ships is only about half of either of the previous two years, arising from the fact that there has been little grain and fewer cattle to ship. We understand that the Ottawa lumbermen are sending up their men to the woods with the intention of making a large number of logs this season, for although they have made a very large quantity of lumber this year the demand from the United States was so good they feel justified in going on, on a large scale. They have been fortunate this year in having plenty of water. Prices here are steady and without any material change in price. We quote yard prices as follows :—

Pine, 1st quality, ₱ M.	$35 00@40 00
Pine, 2nd " ₱ M.	22 00@24 00
Pine, shipping culls, ₱ M.	14 00@16 00
Pine, 4th quality deals, ₱ M	11 00@12 00
Pine, mill culls, ₱ M.	10 00@12 00
Spruce, ₱ M	10 00@13 00
Hemlock, ₱ M.	9 00@10 00
Ash, run of log culls out, ₱ M.	20 00@25 00
Bass, " ₱ M.	17 00@20 00
Oak, ₱ M.	40 00@50 00
Birch, ₱ M.	20 00@25 00
Hard Maple, ₱ M.	25 00@30 00
Lath, ₱ M.	1 30@ 1 40
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M.	2 00@ 2 50

SHIPMENTS.

The shipments from this port since the 9th Sept. were as follows :—to St. Johns, Nfld, 98 mille drum staves and 84,401 ft of lumber : to Liverpool 317,836 ft of lumber and 25,484 pcs boards and deals ; to London 240,000 ft of lumber ; to Buenos Ayres 1,766,810 ft of lumber ; to Montevideo 814,578 ft. The total shipments of lumber to the River Platte since the opening of navigation to date were 14,149,535 ft, against 10,716,180 ft for the corresponding period of 1881, being an increase of 3,433,345 ft.

CORDWOOD.

Wood is rather dearer this week and the market very firm. We note an advance in some kinds. The demand is improving, buyers evidently have made up their minds that no lower prices are likely to prevail this season. We quote ex cars and on the wharf.

Long Maple	$7 50
Short "	7 00
Long Birch	6 50
Short "	6 00
Long Beech	6 00
Short "	5 50
Tamarack	5 00

OTTAWA.

From our own Correspondent.

Sept. 23.—The fall "boom" in the lumbering industry has opened up vigorously, and extensive preparations are being made for the coming winter's operations in the limits in the Upper Ottawa district. Hundreds of men are daily leaving this city for the shanties and in consequence two extra trains have been put on the line running to Mattawa by the Canada Pacific Railway Co. This great exodus is causing a dearth in the saw mills about here, and very great difficulty is experienced in procuring a sufficiently large number of men to keep the mills running to such an extent as is desirable. In fact one of the largest saw mills in this vicinity—Gilmour's—has been compelled to cease operations on Monday next, owing in the greatest measure, to the scarcity of hands, but owing also to a shortage in logs. More timber, no doubt, will be cut during the coming winter than there ever was before in one season.

THE SUMMER'S WORK.

Precisely as your correspondent predicted early in the spring, the summer's cut at the different saw mills hereabouts has been an unusually large one. The water has kept very favourable right along, as it is at present, for shipping and what is not very often seen here, boats leaving the dock at present carry a full load. Other years at this time the water would generally be so low as to admit of no more than a two-third load or perhaps less. The mills have run constantly up to the present and will not shut down until the last moment. The average cut of each mill for the season will be, roughly estimated, 30,000,0000 feet, or a total for the Ottawa mills of 225,000,000. E. B. Eddy heads the list, having three mills, with 75,000,000 feet.

ST. JOHN, N. B.

From our own Correspondent.

Sept. 22.—Since my last report there has been quite a stir in our lumber market, owing, no doubt, to the advance of prices in England during the last week or two from £7 10s., to £8 7s. 6d. per standard, at which latter price several cargoes have been sold in Liverpool, and deals that were selling here slowly at $9 per M. about ten days ago, are now being eagerly looked after at an advance of nearly one dollar above that price.

Freights still remain high and firm at a slight advance above my last quotations, but some shippers are of the opinion that the high rates that are being paid here will attract vessels in this direction, and that there will be a decline in rates, especially after it gets too late to charter for the St. Lawrence ports.

Freights to-day may be quoted as follows :—

Liverpool	72s. 6d. c. d.
Bristol Channel	71s. 3d. to 72s. 6d. c. d.
Ireland	72s. 6d. to 77s. 6d. c. d.

SHIPPING.

The following is a list of the vessels in port, with their tonnage, destinations and rates of freight :—

Henry, 1,095, Liverpool, 70s. c. d.
Honolulu, (new), 1,400, Liverpool, 70s. c. d.
Robt. S. Bernard, (new) 1,194, Liverpool, 71s. 3d. c. d.
Albuera, 655, River Mersey, 71s. 3d. c. d.
Antwerp, 573, Cork, 72s. 6d. c. d.
G. H. Gordon, 478, Cardiff or Newport, 71s. 3d. c. d.
Kate Burrill, 690, W. C. England, 72s. 6d. c. d.
Lalia, 391, Bristol Channel, 72s. 6d. c. d.
Twilight, 756, Londonderry, a/c c. d.
Telegraph 357, United Kingdom.
Scioto, 855, Liverpool.
Magnolia, 469.

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881.			1882.		
Deals. M. S. ft.	*Pine. Tons.*	*Birch. Tons.*	*Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
145,472	768	3,789	134,237	1,082	3,890

VESSELS LOADING THIS DATE.

1881.		1882.	
Ships.	*Tons.*	*Ships.*	*Tons.*
29	24,471	16	11,240

TORONTO.

From our own Correspondent.

SEPT. 22.—Local sales have been much brisker since I last wrote you, although not nearly what it should be at this season, but if we get a fine open fall considerable trade may yet be done by our local dealers, and in any event there is no large quantity of bill stuff likely to be forced on our market this fall, so that prices will not go below that now asked by dealers for that class of stuff. On visiting the various retail yards, I find no excess of stocks on hand, and indeed quite light in most kinds of dimension stuff, lath are scarce and shingles plentiful, prices for the latter rather tending downwards. The N. & N. W. R. R. Co., meet the wants of their customers fully, and I hear of no complaints made relative to scarcity of empty flats, still there may be a rush before the close of navigation yet, which will doubtless be welcomed by shippers. One thing seems quite evident—holders of stocks here do not feel inclined to allow American buyers to make a break in prices, and stocks that does not realize figures at present demanded will likely be held over for the spring trade. If Michigan dealers hold firm to present prices, eastern buyers can do as well here as there, and with the probable advance in freights for the remainder of the season, I question if they cannot do a little better here. My views, thus expressed, may not be correct, but this I do know that most of the stocks now cut, and being cut, from the Georgian Bay southward, are nearly all held by dealers here, and bought at figures which does not justify them in accepting lower prices than those now asked.

Large quantities of cedar posts are now being brought into the city, for block paving purposes, and before the close of the year 1883 all the principal streets of this city will be paved with that kind of material and mud will no longer reign supreme in this the Queen City of the West.

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ₱ M.	$57 00@64 00
Pine, fourths	57 00@59 00
Pine, selects	52 00@54 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 40@00 44
Pine, 10-in. plank, culls, each	00 20@00 22
Pine boards, 10-in.	00 28@00 32
Pine, 10-in. boards, culls	00 20@00 21
Pine, 10-in. boards, 16 ft., ₱ M.	30 00@33 00
Pine, 12-in. boards, 16 ft.	30 00@33 00
Pine, 12-in. boards, 13 ft.	27 00@29 00
Pine, 1¼ in. siding, select	45 00@47 00
Pine, 1¼-in. siding, common	19 00@21 00
Pine, 1-in. siding, select	45 00@47 00
Pine, inch siding, common	18 00@20 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1½-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ₱ M.	40 00@43 00
Ash, second quality, ₱ M.	25 00@30 00
Cherry, good, ₱ M.	60 00@85 00
Cherry, common, ₱ M.	25 00@35 00
Oak, good, ₱ M.	40 00@43 00
Oak, second quality, ₱ M.	20 00@25 00
Basswood, ₱ M.	22 00@25 00
Hickory, ₱ M.	40 00@40 00
Maple, Canada, ₱ M.	28 00@30 00
Maple, American, per M.	26 00@28 00
Chestnut, ₱ M.	35 00@40 00
Shingles, shaved, pine, ₱ M.	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 60
" cedar, mixed	0 00@ 3 50
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ₱ M.	0 00@ 1 75
Lath, spruce, "	0 00@ 2 00
Lath, pine, "	0 00@ 2 25

BOSTON.

The *Journal of Commerce* of Sept. 23rd says : There is a good steady demand, and the general undertone is firm, with a continued favourable outlook for business. The western markets on white pine are quite firmly sustained, and there are very light stocks on the market here for sale. Eastern lumber is quite well sustained, with limited receipts. Southern pine continues rather quiet, and not very strong. Cedar shingles are firm and scarce. Hard woods are pretty firm with an improving trade.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

OSWEGO, N.Y.

Three uppers	$43 00@45 00
Pickings	33 00@35 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	12 00@15 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@38 00
1¼ inch	35 00@40 00
Mill run, 1x10, 13 to 16 feet	17 00@25 00
selected	25 00@35 00
Strips, 1 and 1¼ inch mill run	14 00@20 00
" " " culls	11 00@14 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 00@ 4 35
XXX, 18 inch, cedar	3 75@ 3 75
Lath	1 80@ 1 90

CHICAGO.

The *Lumberman's Gazette* of Sept. 23 says :—The distribution of lumber throughout the Northwest is less in volume than it was during August, owing partly to the fact that September is not a good month of the year for the lumber trade, and the drop in the prices of farm products. The outlook for business is, however, good. Under the pressure of recent heavy arrivals at the Chicago docks, the cargo market at this point had dragged, and while holders claim that prices are firm, buyers assert that they have been able to shake them a little. Trade is reported dull at some points above Dubuque. At some points down the river manufacturers seem anxious to sell. Altogether it is doubtful if values at the mills, from Saginaw to the Mississippi, are quite as stiff as they were, though it cannot be said that they are any lower. Holders may possibly be a little more eager to sell, and not quite as confident of the future, on account of a possible material decline in prices for farm produce.

CARGO QUOTATIONS.

Short dimension, green	$11 25@11 50
Long dimension	13 00@14 00
Boards and strips, No. 2 stock	13 00@17 00
No. 1 stock	16 00@20 00
No. 1 log run, culls out	17 00@22 00
"A"	2 80@ 3 00
Clear	3 20@ 3 25
Lath	0 00@ 2 25

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending September 21, as reported by the Lumberman's Exchange :

	RECEIPTS.	
	Lumber.	*Shingles.*
1882	67,050,000	27,457,000
1881	65,206,000	25,440,000

FROM JANUARY 1 TO SEPTEMBER 21 INCLUSIVE.

	RECEIPTS.	
	Lumber.	*Shingles.*
1882	1,454,270,000	593,647,000
1881	1,325,171,000	598,267,000
Inc.	129,099,000	
Decrease		1,527,000

LAKE RECEIPTS TO SEPT. 20.

1882	1,270,259,000	542,311,000

STOCK ON HAND SEPT. 1.

	1882.	1881.	1880.
Lumber	580,890,533	481,154,279	467,000,000
Shingles	226,806,750	219,628,000	175,000,000
Lath	42,996,432	37,556,820	45,000,000
Pickets	2,678,476	2,030,210	2,000,000
Cedar posts	218,309	266,235	67,000

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

BRISTOL.

Messrs. King Bros.'s last circular contains the following :—A fair amount of business was done during the earlier portion of the last month, but latterly trade has been quiet. The importations continue large, but stocks are not excessive, as the quantity of old goods held over from last year was small. Quebec goods.—Yellow pine timber—All the arrivals have been for railway work. Waney board pine is much wanted, stocks are but nominal. Red pine—None. Oak—No demand. Birch, ash, and walnut are all wanted, no stocks. Deals are not in good demand, except for exceptional sized, which command high prices. New Brunswick goods. Spruce deals have improved in value, but the consumption is not so large as in should be. Dealers are very shy of holding stocks. The present market values are not in accordance with the prices that are now being asked for cargoes c.i.f. Pine deals—No imports. Birch—But two parcels have arrived, which appear to be selling at fair values.

LIVERPOOL.

The *Timber Trades Journal* of Sept. 16 says : The import of all kinds of timber and deals continues very light, and the various quays are beginning to wear a very bare aspect, what is not sold ex ship is going into store. With the prospect of a light autumn import, owing to the scarcity of vessels, sellers are by no means anxious to quit their goods, as there is every appearance that time is in their favour, and that prices will be much higher later on.

There is a continuance of good steady trade here, and the stocks are being worked down rapidly, the consumption during the month of August being 383,000 cubic feet instead of only 155,000 cubic feet as by the dock stocks issued by the brokers in their circulars, in which a mistake in the figures was subsequently discovered. The general position of the market may therefore be assumed to be very favourable for holders here for a considerable length of time to come.

GLASGOW.

The *Timber Trades Journal* of Sept. 16 says : The Clyde imports during the past week have been very light, compris three cargoes, viz.,

Quebec timber, pitch pine, and lower port deals, one cargo of each, with sundry parcels of staves, &c. At Grangemouth there have arrived six small cargoes chiefly deals and battens.

During the past week there have been no auction sales to report, With regard to the deal trade at Yorkhill Wharf, it is at present extremely quiet, very little moving off, and, as indicated above, supplies very trifling. A public sale by and by, however, may produce a decided movement, as it is known there is work on hand, in the execution of which considerable quantities will be required.

The wood which attention has been chiefly directed to here for shipbuilding purposes is pitch pine. As compared with last year at corresponding date the import of the current year (of pitch pine) shows a considerable falling off, the following being the tonnage employed in conveyance : 1882, 38,000 tons ; 1881, 47,800. But compared with years prior to 1881 the import of the current year shows a large increase. It is considered that stocks are meantime quite sufficient for the amount of work going on.

SWEDEN.

The Stockholm correspondent of the *Timber Trades Journal* writing on Sept. 9th says :—It is felt that the prices which are at present being obtained for whitewood goods of all classes are too low and out of sympathy with the aspect of the spruce market at Liverpool. Many holders of such are therefore declining to sell on present terms, preferring rather to keep their goods and take their chance of the market. Exporters are loth to believe the increase of about £1 per standard on the prices of spruce deals at Liverpool will be altogether without effect in Sweden. I am also of the opinion that white deals and battens have touched their lowest point for some time to come.

WINNIPEG.

The Winnipeg *Sun* of Sept. 21 says :—Taking advantage of the presence in this city of Mr. John Mather, of the Keewatin Lumber Company, a *Sun* representative called upon that gentleman yesterday afternoon for the purpose of obtaining some information with regard to the lumbering interests in this country. In reply to questions asked, he stated that he estimated that 60,000,000 feet of lumber, costing on an average $35 per thousand feet, had been brought into Winnipeg this year. Of this amount 25,000,000 feet had been imported from outside, from Minnesota chiefly ; while the remainder had been produced in the country, mainly in Keewatin. The cut of the Keewatin company's mill this year would be about 10,000,000 feet. Their cut had been purchased by Messrs. Boyd & Crowe, of this city, who at the present are shipping lumber to Regina. The Keewatin Company paid their mill hands from $2.50 to $3 per day. The cash value of the lumber brought into the city would be about $2,100,000, and Mr. Maher was asked if in view of the fact that about $6,000,000 worth of new buildings were being put up this year his estimate was not rather low. He stated that it was not, as in the valuation of the buildings, labor, which he estimated to be two-thirds of the cost, had been included, while many of the buildings were of brick. The value of the building hardware had also to be added. He could form no estimate of the available timber supply of the country. There was a good deal of pine scattered at different points between here and Thunder Bay, but he did not think any accurate computation of it had ever been made. There were probably 100 saw mills in the Northwest, but many of them were exceedingly small, some of them not having a capacity of more than 3,000 feet per day.

WHITE PINE.

Those in a position to know most concerning the subject, census commissioners on forestry and leading lumbermen, are of the opinion that all the dense white pine forests of the United States will be destroyed within the next twenty years at farthest. There are many reasons which render their preservation impracticable. They could only be saved by concerted action on the part of the owners and by a heavy expense in the employment of watchmen, purchase of apparatus for the extinguishing of fires and other expensive precautions of great cost and doubtful utility. These grand forests do not find their only enemies in forest fires and ruthless lumbermen. As a pine forest is reduced in size the wind has a fairer sweep on the remaining trees and does more damage to them. Insects injurious to pine trees have multiplied in the past few years and the causes of fire increased through the carlessness of lumbermen, hunters, fishers and campers. Fires often have their origin from sparks sent forth by engines and locomotives, which penetrate the great wooded districts in every direction. Persons opening up farms in the vicinity of pine forests have too slight a regard for property rights, looking upon the ownership of the trees as entitled to no greater respect than proper in many less valuable natural products of the soil. They too often appropriate whatever may be desired for buildings and fences, being liberal in allowances for all demands. Bridges and culverts are constructed from this timber when other wood would answer a better purpose and is equally accessible. Young trees are not preserved and the outlook suggests the necessity of providing a substitute for this favorite lumber which has served such a good purpose in the development of this country. In discussing this important question the Chicago *Times* says that there are more scattering pine trees on broken land, in ravines and in somewhat inaccessible places that many people are aware of. The pine forests cut down were those that stood near the banks of streams or near the sides of lakes. A few years ago forests remote from water courses were of little value. Now railways go everywhere and much lumber is transported in cars instead of by means of rafts. Every year more economy is employed in the cutting of lumber. A few years ago the slabs were thrown away or used for fuel. Now they are cut up into materials for laths. There is now little waste in a saw mill except in the matter of sawdust, and the amount of this has been reduced, even this being converted into a substituted for lumber in some places. In the meantime other woods are being employed in the place of pine for a large number of purposes. The fir, spruce and hemlock are growing in importance every year. Hard woods are gradually taking the place of the soft woods for in-door work. For many purposes the southern cypress is taking the place of the northern pine. It is much more enduring and is quite easily worked. The trees are very large, and almost every portion of them can be converted into commercial lumber. The quantity of cypress lumber is much larger than many persons suppose. Poplar, basswood and other soft woods are now extensively employed for a large number of purposes. Attempts are being made to render the various kinds of tupello available in the arts. It has many desirable qualities. It is white in color, very light, and not liable to warp or split. It decays quickly when not protected and is very porous. With materials for closing its pores and rendering it less destructible it would be as desirable as white pine for all purposes and more desirable in some respects.

There is no deguising the fact that the rapid growth and great prosperity of this country has been largely due to the abundance and cheapness of pine lumber. By means of it towns have been built in a few weeks, and shelter provided for families on the prairies in a few days. Houses and other buildings have been constructed all ready to be put together, and sent on cars or boats hundreds of miles into the country. In some cases they have been offered almost as cheap as tents. Pine lumber has been transported down streams and across lakes at a nominal expenss, and with very little liability to loss. It has afforded the materials for bridging ten thousand rivers and streams, and for erecting fences whose combined length would reach many times around the earth. Nearly all of our cities and towns were built almost entirely of white pine in the first instance. This was true not only of the houses and other buildings, but of the fences and sidewalks. It must be acknowledged that white pine has "been the making of the country." It has been the leading factor in our prosperity. It is therefore by no means strange that many persons believe our decline in material prosperity and advancement will begin with the destruction of our pine forests. They see that the present generation will be deprived of the greatest source of prosperity. They argue that our territorial expansion will be retarded by the deficiency of pine lumber. Some have already composed new books of lamentations preparatory to hanging their hats on the willows. This feeling, inspired partly by sentimentality and partly by the desire to play the part of the philanthropist, caused the passage of the forest tree culture act and the various schemes to encourage forestry. It is likely that an acre of land has been given away for every timber tree that will be produced.

There is no reason, however, for believing that the "country will go to smash" as soon as the supply of pine timber is exhausted. It is certain that it "served a good turn," and, as the saying is "helped us out" when the people were poor and the means for erecting buildings were limited. We are better off now, and in a condition to get along with other kinds of building materials. The first settlers of any portion of the country need a cheap material for buildings, fences, and fuel. The second generation, however, inherit their property, and can be at more expense for these things. Observation shows that buildings composed of more enduring materials generally succeed those made of wood. In every town of considerably size, wooden building are only erected for temporary occupancy. As population and business increase and better buildings are wanted, they are constructed of brick or stone. As the building contains more valuable property the greater security is required to protect them from fires. Substitutes for wood in some department of industry are brought out almost every year. Within the past five years barbed wire has almost entirely taken the place of boards in the construction of farm fences. In five years more iron or stone will take the place of wood for supports or posts. In a near future shelters for stock will be made of sheet metal fastened to supports of the same materials. Slate or glass will surely supersede shingles for covering roofs. Wooden sidewalks will give place to those made of stone or cement. At present more fences are being torn down than erected in front of residence lots in cities and towns. This results in saving much lumber. Wood, except for kindling purposes, is now rarely used for fuel in town houses, and has almost entirely given place to coal for generating steam.—*Lumberman's Gazette.*

SPRUCE IN ENGLAND.

The *Timber Trades Journal* of Sept 16th says :—The most important consideration of moment still appears to be the spruce market, and when discussing the subject interest is almost entirely centered upon the state of affairs at Liverpool. It is said—we do not guarantee the statement—that £8 10s. per standard has been offered for a cargo of yarded spruce at Liverpool and declined. A well known and undoubtedly well informed Liverpool importer is understood to have some time back expressed his belief that St. John spruce deals will touch £9 per standard ; it would seem that his anticipation is in a fair way of realization. Stocks of spruce in Liverpool are, according to the opinion of one of our informants, lighter than they are generally known to be. The deliveries of spruce deals from Liverpool just now are of an exceedingly limited character ; this fact, however, does not show conclusively that the consumption has fallen away. What it probably means is that users of spruce are depending entirely upon stock, and that they will go into the market only as necessity forces them. It is not to be expected that consumers of spruce deals, who have laid in stock at prices varying from £6 10s. to £7 per standard, will, before they have used up the stocks they hold, buy fresh parcels at prices varying from at least 20s. to 30s. a standard higher. Some of the Liverpool houses are said to be practically cleared out of spruce deals, and, if this be the case, there is some reason for the belief that the wood has not yet touched the highest point.

Spruce deals 4 in. in thickness are becoming more common in the market. They are nearly always required for weight-carrying purposes, a position which the tough, resistant nature of spruce peculiarly qualifies it for. We should say that there have not before been so many 4 in. spruce deals held in stock on this side as now. We quite expect the importation to increase, considering how serviceable the deals are.

Pine deals have distinctly advanced in price during the last fortnight on the west coast. The advance may safely be recorded as not having been of less extent than 10s. per standard.

JONES & SON,

Wholesale Lumber & Timber Dealers

39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut

And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.

Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.

17

AN honest medicine is the noblest work of man, and we can assure our readers that Dr. Fowler's Extract of Wild Strawberry is not only reliable, but is almost infallable to cure Cholera Morbus, Dysentery, Canker of the Stomach and bowels, and the various summer complaints, whose attacks are often sudden and fatal.

V. EDMANSON, of Bradford, writes:—Burdock Blood Bitters is an excellent preparation, gives entire satisfaction and sales increasing every day, it sells now on its merits—Burdock Blood Bitters cures Scrofula Liver complaint, Dyspepsia and Kidney complaints, in their worst form.

LEATHER BELTING.

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MANUFACTURERS OF

LEATHER BELTING,

FIRE ENGINE HOSE

LACE LEATHER, &c.

124 & 126 Queen St.

MONTREAL

FIRM PRICES.

A correspondent of the Chicago *Northwestern Lumberman*, who has been visiting Toronto, says:—The lumber merchants of Toronto appear to be satisfied with the year's business, though they admit that it has not been characterized by as much of a boom as they expected in the spring. They say that the demand has been good, and that stocks are not plenty in Canada. They are all very firm in regard to prices. The cut of the season, it is thought, will show a considerable shortage at the close, and not as much lumber will be handled as was expected. The price of labour at the mill has been very high throughout the season, on account of the scarcity of hands. At many mills it has been impossible to secure help enough to man them so as to employ their full capacity. This state of things tends to shorten the Canadian supply of lumber, and, though it may not have any appreciable effect on the eastern market, serves to make the holders of stocks in the Dominion feel firm as regards prices.

The Teak Market.

The teak forests of British Burmah have supplied a yield of 227,000 tons for some years past. The efforts of the Forest Department are being directed towards increasing the forest reserves, so as to render them independent of the transfrontier forests, which will probably be worked out in time, and towards enlarging the yield, so that British Burmah may be relied upon to supply the demand of the world for teak. There seems little prospect that the demand for it will decrease, for the timber combines in a remarkable way many useful qualities, and its employment for various purposes is steadily extending, while the teak-growing areas of the world are but limited. Forest conservancy is, of course, an expensive undertaking, but the receipts already more than double the cost, and there seems no reason why sixty or seventy years hence the forest reserves of British Burmah should not yield an annual revenue of half a million sterling.—*Timber Trades Journal.*

United States Regulations.

The Ottawa *Citizen* says:—The Treasury Department at Washington has made the following decision, which will be of interest to lumber dealers, viz:

There is no intermediate thickness known between 1 and 1¼, 1¼ and 1½ inches, under the practice and commercial usage. Lumber must be classified for duties under the following scale:

If ½ inch and less than ⅝ inch it is ½ inch.					
If ⅝	"	"	¾	"	⅝ "
If ¾	"	"	⅞	"	¾ "
If 1	"	"	1¼	"	1 "
If 1¼	"	"	1½	"	1¼ "

In the same manner 1½ or over ¼ in variations. This decision is final, and the shippers can govern themselves accordingly.

THE Midland *Free Press* says:—There are strong rumours afloat that a former resident of of this village, and a well known lumberman, has received the appointment of manager of the British Canadian Lumber & Timber Company, at a handsome salary. We are not in a position to mention any name, but should the report of the appointment prove correct we look upon it as a very good one and prognosticate its satisfaction to all concerned.

SURE, safe and effectual, that old remedy, Downs' Elixir, for the cure of Coughs and Colds.

IF mothers and nurses would cease giving opiates in the guise of Paregoric, and Cordials, and for children teething and subject to bowel complaints, give instead Dr. Fowler's Extract of Wild Strawberry, the lives of many infants might be saved that are sacrificed to deadly drugs.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly as to its wonderful effects.

AMONG the most prevelant fatal and sudden attacks of diseases, are those incident to the Summer and Fall, such as cholera morbus, bilious colic, diarrhœa, dysentery, etc., that often prove fatal in a few hours. That ever reliable remedy Dr. Fowler's Extract of wild Strawberry, should be at hand, for use in emergency.

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to Sept. 19:—

	1880.	1881.	1882.
Waney White Pine..	1,902,770	1,799,707	1,938,078
White Pine.....	3,568,672	4,623,948	6,524,244
Red Pine.....	840,644	1,374,517	1,118,583
Oak.....	1,256,798	2,225,098	1,093,949
Elm.....	892,054	934,505	562,822
Ash.....	227,872	359,501	211,994
Basswood	206	3,356	1,273
Butternut.....	627	1,574	2,585
Tamarac	22,404	22,728	8,234
Birch & Maple.....	555.874	140,428	263,812
Masts.....	4 pcs	— pcs	33 pcs
Spars.....	23 pcs	— pcs	51 pcs
Std. Staves.....	16.4 3.15	314.6.3 0	310.0.1.3
W. I. Staves.....	260.0.0.22	326.0.3.0	962.7.1.8
Brl Staves.....	.....	.....	42.0.2.3

JAMES PATTON,
Supervisor of Cullers.

Quebec, Sept. 15.

Our Prairie Province Woods.

The Kingston *Daily News* in its report of the Dominion and Provincial Exhibition in that city, referring to the contributions for Manitoba, says:—"There is a prevailing, thought somewhat erroneous idea that Manitoba has no woods. This impression will be banished when the blocks of cotton wood, white willow, white ash, soft maple, elm, black poplar, oak, birch, balm of Gilead, red cherry, high bush blueberry, black cherry, plum and white poplar are shown. Any illusion that this country cannot produce good forests will be dispelled by a glance at the huge blocks. Selkirk West is well represented in this department William Pruden exhibiting plum, red cherry, choke cherry, high bush blueberry, maple, white ash, white willow, balm of Gilead, elm, oak, black poplar, white poplar and cotton wood. The block of oak from the banks of the Assiniboine is three feet in diameter."

BAXTER'S MANDRAKE BITTERS never fail to cure Costiveness and regulate the Bowels.

CASTORINE MACHINE OIL
CASTORINE AXLE GREASE

EARS FOR THE MILLION

Foo Choo's Balsam of Shark's Oil

Positively Restores the Hearing, and is the only Absolute Cure for Deafness known.

This Oil is abstracted from peculiar species of small **White Shark**, caught in the Yellow Sea, known as CARCHARODON RONDELETII. Every Chinese fisherman knows it. Its virtues as a restorative of hearing were discovered by a Buddhist Priest about the year 1410 Its cures were so numerous and **many so seemingly miraculous**, that the remedy was officially proclaimed over the entire Empire. Its use became so universal that for **over 300 years no Deafness has Existed among the Chinese People.** Sent, charges prepaid, to any address at $1.00 a bottle.

Hear What the Deaf say!

It has performed a miracle in my case.
I have no unearthly noises in my head and hear much better.
I have been greatly benefited.
My deafness helped a great deal—think another bottle will cure me.

"Its virtues are UNQUESTIONABLE and its CURATIVE CHARACTER ABSOLUTE, AS THE WRITER CAN PERSONALLY TESTIFY, BOTH FROM EXPERIENCE AND OBSERVATION. Write at once to HAYLOCK & JENNEY, 7 Dey Street, New York, enclosing $1.00, and you will receive by return a remedy that will enable you to hear like anybody else, and whose curative effects will be permanent. You will never regret doing so."—*Editor of Mercantile Review.*

☞To avoid loss in the Mails, please send money by REGISTERED LETTER.

Only Imported by **HAYLOCK & JENNEY,**
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SOLE AGENTS FOR AMERICA. **7 Dey St., New York.**
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ROBERTSON'S
LIGHTNING CANT-DOG
STEEL RING,
The Lightest, Cheapest and Most Durable Cant-Dog in the World.

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Oak Tanned Leather Belting

Rubber Belting, | Rubber Packing,
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A Full and Complete Stock always on hand.
Write for Prices and Discounts.

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WAREHOUSE—10 & 12 King Street East,
P.O. BOX 556. TORONTO.
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Represents
No. 5 20-Horse Power
FIRE-PROOF
CHAMPION
SAWMILL
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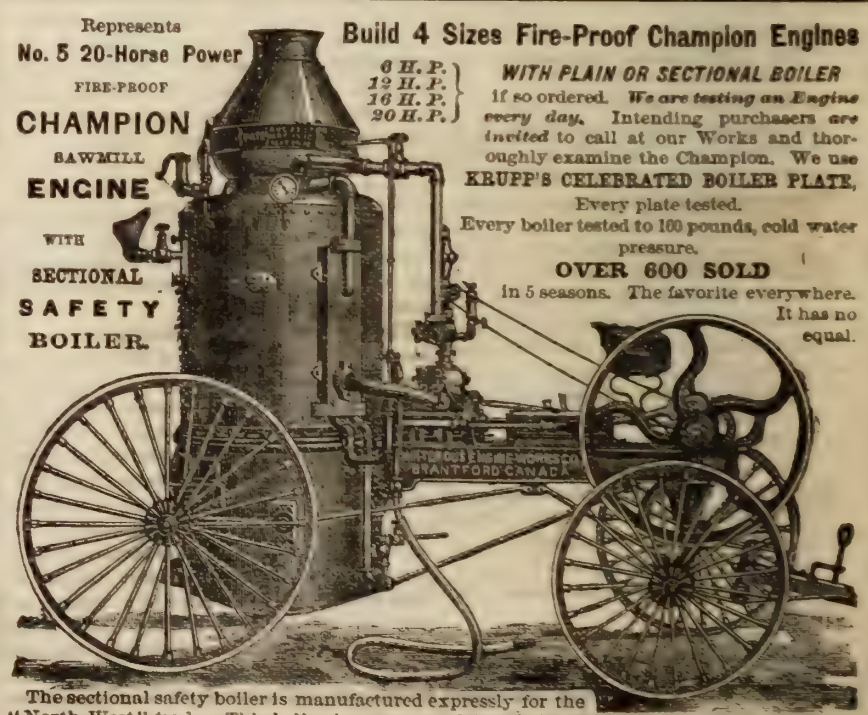
WITH
SECTIONAL
SAFETY
BOILER.

Build 4 Sizes Fire-Proof Champion Engines
6 H. P.
12 H. P.
16 H. P.
20 H. P.
WITH PLAIN OR SECTIONAL BOILER
If so ordered. *We are testing an Engine every day.* Intending purchasers *are invited* to call at our Works and thoroughly examine the Champion. We use KRUPP'S CELEBRATED BOILER PLATE,
Every plate tested.
Every boiler tested to 100 pounds, cold water pressure.
OVER 600 SOLD
in 5 seasons. The favorite everywhere. It has no equal.



The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. *We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies.* Largely used by the Pacific Railway Company and all the large Colonization and Ranche Companies.

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Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES. 1L19

144 Upper Water Street, HALIFAX, N.S.

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Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

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"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

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Four (4) Medals and Three (3) Diplomas awarded to them in 1881, by the Leading Exhibitions of the Dominion.

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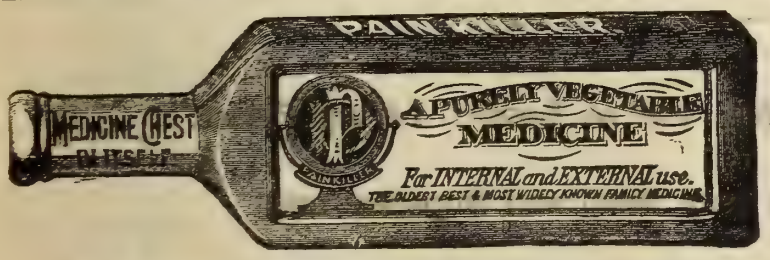
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MEDICINE CHEST
A PURELY VEGETABLE MEDICINE
For INTERNAL and EXTERNAL use.
THE OLDEST BEST & MOST WIDELY KNOWN FAMILY MEDICINE

Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

COBOURG, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &c., J. E. KENNEDY

Beware of Counterfeits and Imitations.

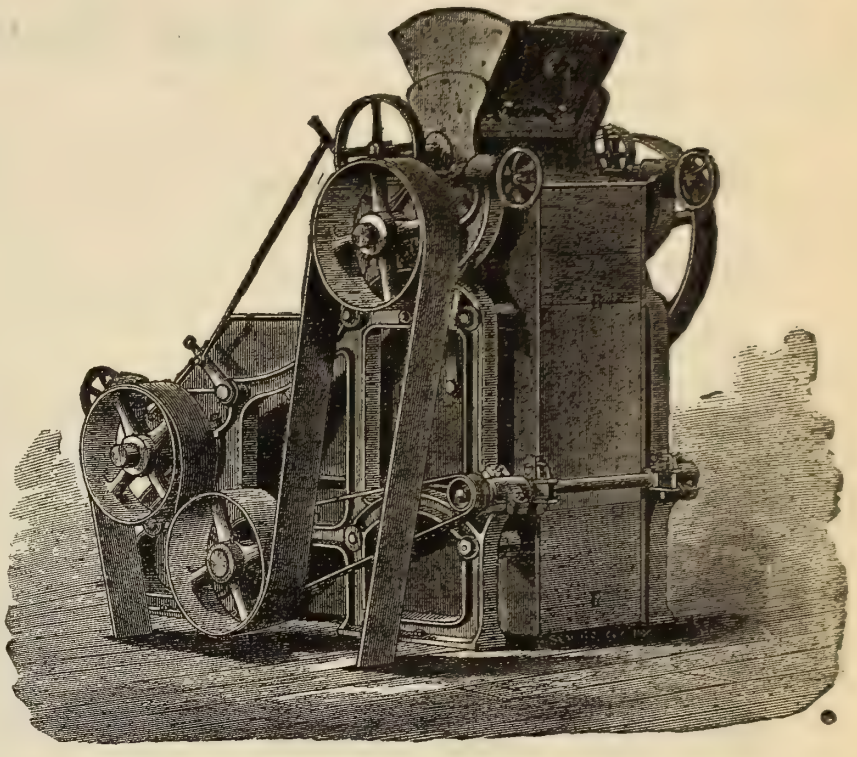
Price 20c., 25c., and 50c. per bottle.

THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT

Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. ☞Send for particulars.

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☞Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

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LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices.

Shanty Settlements
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Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

TOKER & Co.,

"THE CANADA LUMBERMAN,"

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EMERY and CORUNDUM WHEELS

These Wheels are Wire Strengthened

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Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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WE ALSO REFER TO

WILLIAM HAMILTON, ESQ, PETERBOROUGH, Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON, DESERONTO, Lumber Merchants.

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EMERY WHEELS FOR SAW GUMMING!

EX INUTILI UTILITAS — TRADE TANITE MARK

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing $3 to $4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of $500 to $750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x¼, 8x⅜, 8x½ — ⅝ in. hole. 10x¼, 10x⅜, 10x½, 10x⅝ — ⅝ in. hole. 12x¼, 12x⅜, 12x½, 12x⅝, 12x¾, 12x1¼ — Holes, ⅝, 1 and 1 inch.

Probably more wheels 12x⅜, 12x½ and 12x¾ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth *case hardened*, in which condition the saw will cut about 33⅓ per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities *to match* any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you *a Tanite Wheel of similar quality*. Our *regular* classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM—HARD.—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2. It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM—SOFT.—The same as to coarseness and fineness as "Class 2," but a *softer*, and therefor freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both *finer* in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1y13

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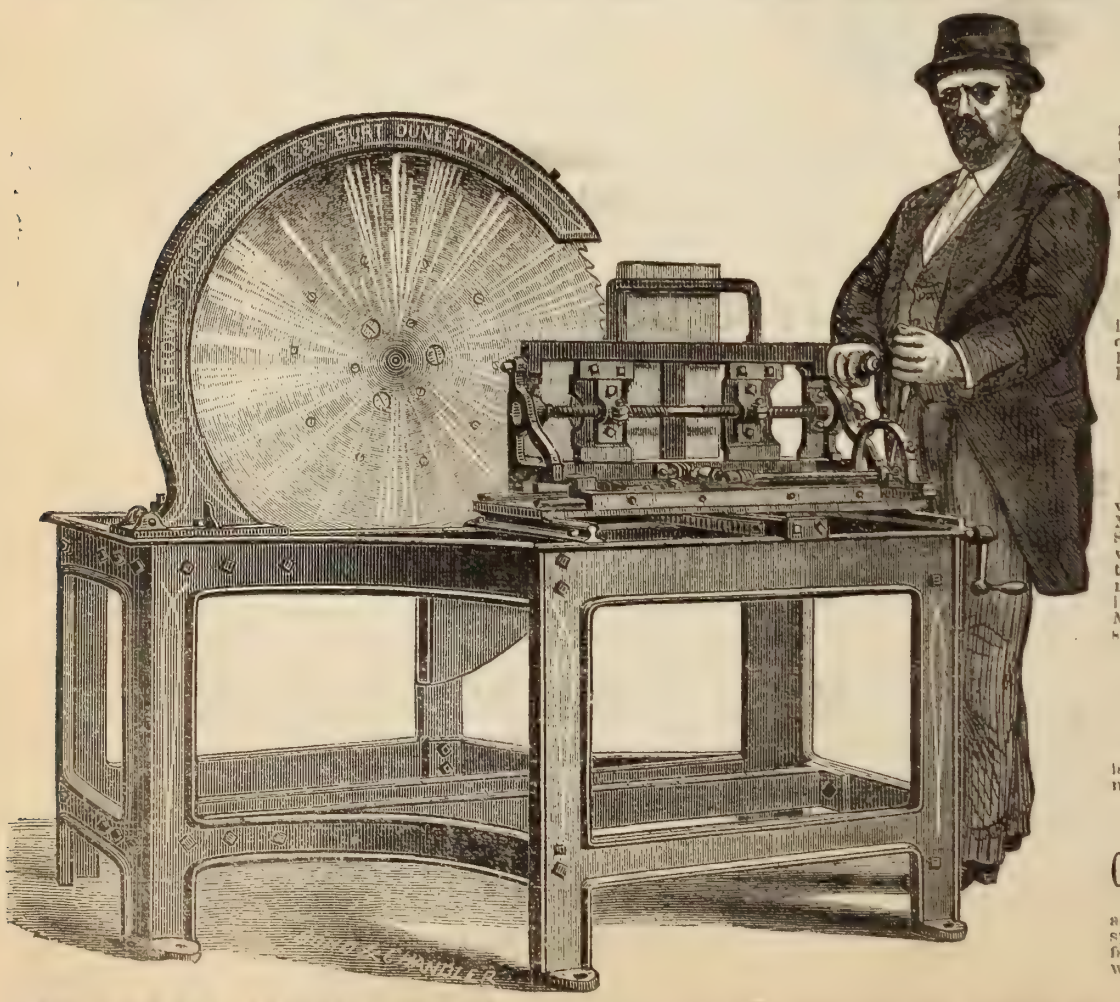

BY THE USE OF

Brown's Patent Spalt and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c., from spalts, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion; have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out; sixteen 16 ft. boards, or eighteen 13 ft. boards, have been cut by it in one minute. It is the established feed for steam mills; I make a specialty of its manufacture; will guarantee satisfaction.

Our Patent Twin or Span Circular,

with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab logs 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Trenton, and Georgian Bay Lumber Co's Mill, Waubaushene and Port Severn. ☞ I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise; I keep it constantly on hand, ready for immediate shipment.

Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call

WILLIAM HAMILTON, Peterborough Foundry and Machine Works, **PETERBOROUGH, Ont.**

THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

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MUTUAL ADVANTAGES.

Just now, as explained elsewhere, St. Paul is objecting loudly against the running of the sawdust of the mills at Minneapolis into the Mississippi river. Well-informed men, who are not particularly interested in either, claim that on the part of St. Paul it is a spasm of jealousy, and that the arguments used are not the sound est, as of course they are liable not to be if jealousy is at the bottom of them. The towns are smart ones in every sense of the word, are but a few miles apart, and if the feeling of rivalry that naturally exists between them should result in the kicking of one against the other whenever there was the slightest possible excuse for doing so, it would only be an exhibit of human nature.

Notwithstanding the reason of the objections raised by the St. Paul people, it appears to the *Lumberman* that it is in the range of possibilities for this very sawdust, that they now view in the light of an enemy, to be utilized in a manner that will be valuable to them.

An embryo sawdust pressing company, or something of that sort, made a proposition to take the dust and experiment on it with its patent, but the saw mill men saw an objection ahead, claiming that the money the fuel company was willing to pay them would not recompense them for making the necessary changes in in their mills. Possibly, too, they had in mind the fact that as the pressing of sawdust into fuel is an experiment anyhow, the bottom might fall out before they could sell any sawdust to speak of.

But pass the compressing concern by, and there are still better uses to be made of the sawdust of the many mills at Minneapolis than turning it into the river. One of the necessities of Minneapolis is gas, and no doubt the majority of the business men of St. Paul would say without hesitation that much of it is used in their rival city. Gas can be manufactured from sawdust. There are mills at Bay City, Mich., that are successfully lighted with such gas. We do not know how much coal costs in Minneapolis, but the coal bill of gas manufacturers are always big ones everywhere. In the manufacture of gas from sawdust, the residuum is charcoal. Certain acetates of commercial value are also produced. As has been known for years, charcoal iron is best. In fact, any other, in this day of the world, is considered very inferior.

Parties in St. Paul have been sinking what they have hoped would be an artesian well. At the depth of six hundred feet magnetic iron ore was struck, of nearly native richness. The drill was sunk into the ore forty-two feet without passing through it, and the well-diggers have suspended operations until they can obtain diamond drills.

With iron ore of the first quality iron could be manufactured at St. Paul for the needs of the great and growing Northwest. The question would be at the cost of the fuel. which would have to be transported from the mines of Pennsylvania. Right here is where the despised sawdust would step in and fill a vacancy that otherwise would be an aching void. The charcoal from the Minneapolis gas retorts would more than take the place of the Pennsylvania coal, and the chimneys of the iron works of St. Paul would be enduring monuments, and envied ones by the city up the river.

Should anything step in to prevent the manufacture of iron at St. Paul, the Minneapolis mill men need not continue to let their sawdust run into the river, if by so doing they are likely to gain the eternal enemity of their down stream neighbors. Minneapolis is a great flour town—the greatest, in fact, in the would. Her flouring mills have a capacity of some twenty-five thousand barrels daily. A great many barrels are required for that portion of the flour that is barrelled, and the barrels cost something like forty cents each. In New England barrels have been made for years from wood pulp. The enterprise has been a success of the first water. At the factories there, to produce a barrel it costs seventeen cents. Sawdust is proper material for pulp, and doubtless much of the expense ordinarily attending the manufacture of it would be done away with, because the grinding of the wood would be done free gratis by the mill saws. To put in running shape a pulp factory of the proper capacity, for the manufacture of barrels, would require an investment of $250,000, but without much doubt it would pay handsomely. If it pays in New England where the people are several seconds to a mile slower than they are in the rushing Northwest, it surely ought to pay in Minneapolis. Then such a mammoth cooper shop would be a feather in the cap of Minneapolis that St. Paul could not possibly stick in her tile, simply for the want of sawdust.

The *Lumberman* suggests no chimerical projects. Both of them have been tried, have paid, and have not been found wanting in a single respect. It would be much better if brotherly love existed between the inhabitants of Minneapolis and St. Paul, and these suggestions are made in order to bring it about.—*Northwestern Lumberman.*

EXPERIMENTS IN TREE-PLANTING.

That the Forestry Congress recently held in this city will have the effect of deepening the interest of Canadians in the subjects which came before the scope of its deliberations there is good reason to believe. Not the least interesting of the papers which were read during its sessions were those which treated of experiments in tree-planting made in different parts of the Dominion and the United States. We have received a small pamphlet containing a paper taken from the Montreal Horticultural and Fruit-Growers' Association's Report for this year, in which the Hon. H. G. Joly, who, it will be recalled, took a leading part in the late Congress, gives an account of some experiments conducted by himself in the cultivation of the black walnut, the elm and the box elder or ash leaved maple. He recommends that, whenever practicable, the black walnut should be raised from the nut, which should be sown in rows, four feet apart on every side, this distance allows the trees to grow up without spreading lateral branches which, being fragile, are liable to be torn by the wind and other agencies. Guided by experience, he thinks the fall the best season for sowing, care having been taken to protect the nuts from rancidity through heat. These valuable trees have not as yet been regularly cultivated on an extended scale in Canada, but Mr. Joly gives the substance of some trustworthy and interesting information on the subject from Mr. George Stanton, of Simcoe, who sowed last fall twenty-five bushels of black walnut nuts in the rich soil of his own land. It has been ascertained that with the soil and climate of Ontario, under good management, this tree will grow annually at least two thirds of an inch in diameter, or twenty inches in thirty years. Under less favourable conditions, such as are found in Quebec, these averages would be reduced to half an inch yearly or twenty inches in forty years. In his report on Forestry for 1877, Prof. Hough, whom we had the pleasure of hearing at the Congress in this city, allows 680 trees, 51 years old, to one acre, the distance apart on every side being eight feet. At this rate, we are told, an acre of good soil, planted in black walnuts, if well attended, might be expected to yield a revenue in from 30 to 40 years, of $20,400—30 cubic feet (at $1 a foot) being allowed for each tree averaging 20 inches in diameter. European writers do not give quite so many trees to the acre as Mr. Hough, but Mr, Joly thinks that two-thirds of his number may be safely conceded. In calculating the lapse of time before a profit could be obtained from such a plantation, he takes it for granted that the trees would not be cut down before they had attained a diameter of, at least, 20 inches. In his carefully compiled statement of the northern limits of the Canadian forest trees, Dr. R. Bell says that the black walnut (*piglans nigra*) is confined to the tract lying south of a line drawn from the head of Lake Ontario to near the outlet of Lake Huron, and Mr. Stanton says that Long Point and the adjacent region was once a great black walnut country, and that there is still quite a number of those trees left there. Some of those which he measured had a girth which indicated an age of 55 years.

Mr. Joly's other experiments were with elm-raising from the seed. He advises for that purpose the collection of the small seedlings which grow so thickly at the foot of the trees. Of a couple of hundred, no bigger than needles, pulled up in bundles with the attached moss, only half a dozen died after being transplanted. Kept damp and in the shade for some days, at the end of three months they were over six inches high and they still promise to grow in accordance with this rapid start.

Having obtained some seeds of the box elder or ash-leaved maple (*negundo aceroides*) called by the French of *erable a giguieres*, Mr. Joly placed them in a flower pot and they came up with wonderful vigor. Though occurring in the Eastern States, Dr. Bell says that this tree does not seem to have been found native in Quebec or Ontario, but he mentions that young trees raised at Montreal from seeds brought from Manitoba grew rapidly and bore seeds in the 8th year. It abounds in the Red River valley and extends north to the Dog's Head on Lake Winnipeg. Prof. Macoun found it at Tail Creek, discharging into Buffalo Lake. Mr. Joly found mention of it in D. J. Browne's *Sylva Americana* (1832), where it was recommended for fuel. Michaux says that, to obtain its full proportions, it requires a climate some degree milder than that of Philadelphia. The fact that it grows well in Minnesota and our Northwest, contradicts the opinion of both these botanists. Nuttall gives it a much greater northern extension than the latter, pronouncing it abundant about the Saskatchewan and Red Rivers, and reports the manufacture of sugar from its sap by the Crow Indians. This statement is confirmed by the experience of Mr. Joly's western friends, who say it is fit to be tapped for sugar at six years old.

Mr. Joly's paper ends with an appeal to "men of good will" to espouse, by word and act, the cause of forest culture, urging them to begin at once and plant for coming generations. He suggests that in Canada we might with advantage adopt a pleasant custom that prevails in several of the United States, that of having an annual holiday for tree-planting. On "Arbor Day" 1875, in Minnesota more than a million trees were planted.—*Montreal Gazette.*

THE St. John *Sun* says that Mr. Robt. Robertson, jr., will ship 125 standard of spools and spool wood from his Petiticodiac factory to England, per the brig "Lovoida Borstal."

THE Chippewa Logging Company, of Eau Clairs, Wis., have recently purchased a large tract of pine land from the Cornell University, comprising 110,000 acres, and containing over 6,000,000,000 feet. The demand for logs for next season's stock is such that 3,000,000 feet will probably be put in the coming winter, if it can be contracted. Contracts for banking timber ranging from two to twenty millions, and extending from one to three years, are being made.

LUMBERING IN MANITOBA.

The Winnipeg *Times* says:—Winnipeg has many industrial agencies that materially assist in increasing her wealth and development, and it may be surprising to many to learn that her lumber trade forms the most important of these auxiliaries. Year by year the trade has been growing until now it has become of astonishing magnitude. A few years ago the lumber trade of Winnipeg could be summed up in a few million feet, but now it is found to amount to hundreds of millions of feet. A few years ago, also, a couple of hundred men were sufficient to carry on the trade, but now nearly one thousand men are employed. Such has been the rapid development of this valuable industry; but it will not stop here, for on every hand new lumber firms are springing into existance, new saw mill being erected, new timber limits being surveyed and secured, and those at present engaged in the business are increasing their facilities in order to keep pace with the demand. The above is strong evidence that lumbermen anticipate a much larger trade than ever in the future. Those already in the business report that the trade increases monthly, and this year it will be a third greater than that of last year. As a circulator of money there is no other industry existing in the city that equals the lumber business. The statement given below, which was obtained from the lumber dealers by a *Times* reporter, and which includes all classes of building material, shows that 203,800,000 feet of lumber is handled annually in the city. This lumber is sold at prices varying from $30 to $70 per thousand feet, according to quality. If the above amount of lumber was sold at $35 per thousand feet, the sum of money distributed would be enormous. The lumber trade of this city is also the greatest employment bureau, excepting the C. P. R., in the country, nearly 1,000 men being employed in its operation. These men receive wages averaging from $2 to $3 per day during the whole year. There is not a line of business in the country that is not benefitted, either directly or indirectly by this great source of wealth. Already this season the dealers of this city have sold 100,220,000. Half of the lumber handled by our ocal dealers is consumed in the city, and the other half in province and territories. Below is a list of the principal dealers, and the amount of lumber they handle annually, the amount they have already handled and the number of men they employ:—Jarvis & Berridge deal extensively in and manufacture all kinds of lumber, pine, spruce and hardwood, lath, shingles, doors, sash and everything connected with this line of business. The firm has in operation two saw mills, having a sawing capacity of 50,000,000 feet per year, in connection therewith they operate a large sash and door factory, which consumes annually about 10,000,000 feet in the manufacture of doors, sashes and other fine work. Besides this firm has handled since the commencement of the present season 15,000,000 feet of lumber. In conducting this business 150 men are employed during the whole year. Brown & Rutherford have two saw mills and one planing mill in operation, manufacturing all classes of lumber, doors, sashes, lath, etc. On saw mill is situated on lake Winnipeg, and saws annually 20,000,000 feet of lumber. The other mill is established in the city, and cuts, per year 3,000,000 feet, mostly goes through the planing mill, with over 2,000,000 feet of imported lumber of the better class for doors, sash and other kinds of building requisites for which fine timber is required. During the present building season this firm has disposed of about 11,000,000 feet of lumber. On the average seventy-five men are employed by the firm all year. Dick & Banning own three saw mills, which during the sawing season are constantly working. These mills will cut 35,000,000 feet of this will be used in making doors, &c., besides 5,000,000 feet of fine lumber which the firm imports. Dick & Banning have already sold this season 15,000,000 feet. The firm has at all seasons of the year 150 men on their pay roll. Shore & Davis operate a saw mill at Lake Winnipeg, and import largely all kinds of lumber. Already this season they have handled over 4,000,000 feet, and before the year closes they expect to handle as much more. They employ, on the average, 50 men during the entire year. Plews & Mann commenced business about the first of June last, and since that time 2,000,000 feet of lumber have entered and left their yard. This firm imports their whole stock. They deal in every description of building material, and employ 15 men. B. C. Kenway consumes 2,000,000 feet of lumber yearly in the manufacture of doors, sash, &c. He imports solely. He has also sold 2,400,000 feet for building purposes since last spring. Fifty men are employed steadily in the yards. D. Sprague has thirty men in his employ, erecting a fine saw mill on the banks of Red River. He has imported and disposed of 520,000 feet of lumber within the past four weeks. When his mill is completed 50 men will be employed to operate it. Boyd & Crowe handle the entire cut of the Keewatin Milling Company, which represents 12,000,000 feet per year. During the present season this firm has sold 9,000,000 feet of lumber. The Keewatin Milling Co. employ 125 men at their mill and in the woods. Hugh Southerland & Bro. carry on an extensive business as wholesale and retail dealers and manufacturers of lumber. They handle the cut of three saw mills which amounts to 60,000,000 per year, and they have sold more than half of that amount since the beginning of the present building season. They have also imported 8,000,000 feet from the States and other places. The average number of men on their pay-roll is 200. D. Patterson operates one of the largest sash and door factories in the city. In the manufacture of doors, flooring and other material, 50,000 feet of lumber are consumed weekly, or 2,600,000 feet annually. Mr. Patterson has in his employ 150 men, part of whom work in the factory and part on building contracts, which this gentleman also takes in connection with his other business.

The above do not include all the lumber firms in the city. There are a number of other more obscure firms of recent birth, which have not yet branched out to any very noticeable extent. A rough estimate places the amount lumber these small concerns have handled altogether this season at about 2,000,000 feet, and the number of men employed 100.

PROF. SARGENT ON FOREST PROTECTION.

The *Northwestern Lumberman* says:—In the current number of the *North American Review* Prof. Charles S. Sargent has a paper on "Protection of the Forests," which evinces thorough general observation of the subject. He takes a discouraging view of the capacity of rapid reproduction in our native forests. He says:—

"It is not improbable, in the light of recent scientific investigations, that even so recently as the time when some of the immediate ancestors of the trees which form the forests were growing, the whole interior region, now believed to be gradually drying up, enjoyed a more abundant rainfall than it now receives, and that these forests thus originally grew under more favourable conditions than at present. If the hypothesis is correct, it will be easy to understand why, under less favorable circumstances, their reproduction will be difficult. The interior forests at the north may be expected, however, thanks to the present rainfall of that part of the country, to reproduce themselves slowly; but so slowly must this process go on, that, judging from the age of existing trees, many hundred years will have passed, if these forests are destroyed, before their successors can attain sufficient size to be of economic importance. Through all the southern part of the interior region the struggle for life has been so severe that the stunted groups of trees, which barely deserve the name of forests, have only succeeded in finding a foothold in the high canons about the heads of the scanty streams. The age of some of these small trees is immense; few young trees are growing up to replace those that perish in the course of nature; and once destroyed, the reproduction of these forests is so doubtful, or must at least be so slow, that the possibility of it, even, need not be considered in any practical discussion of the question."

Prof. Sargent's views as to the ability of our forest land to reproduce trees rapidly will hardly stand the test of observation. On a recent visit to his native county in New Nork the writer was powerfully impressed with the fact, heretofore alluded to in these columns, that the second growth of maple, cedar and other woods has been very rapid in the last twenty years—so much so that the doings of the Forestry Congress at Montreal, from which the writer has just come, appeared as though they had no essential motive; nature and the good care of the land owners were doing a practical work that the forestry agitators were essaying on paper and on the platform. As a matter of fact the forests of many parts of New England (we have the supporting testimony of Dr. Loring) and New York, and doubtless of all the other forest bearing Middle States, cover as much area as they did 25 years ago, and more trees are now standing on a given area than there were a quarter of a century since. It was our observation, too, in the state of New York that the owners of forest lands fully appreciate the situation, and instead of there being a waste of timber, there is an economy of it, farmers often valuing their timber more highly than any portion of their free-holds. This feeling will doubtless grow as the demand for all merchantable woods increases. It will be a question of economy of available wealth, and will be determined by selfishness, the same as any other practical economical question is determined.

Prof. Sargent reverses the popular theory that forests produces rainfall, and insists that rain produces forests. Probably he is right. It has been our observation for years that rainstorms, like all meteorological changes, are wide sweeping, and determined by nothing of a local character. A storm will often sweep over the entire western states, taking in forest and prairie, and no topographical peculiarities of of localities make any difference with the progress of the wind, clouds, rain or snow. It is the same with the great storms that sweep along the Atlantic coast, such as recently denuded New Jersey and New York. The ocean and mountain ranges have more to do with determining storms than anything else, forests having very little effect. Long continued droughts as often occur in forest countries as on the treeless prairies.

Prof. Sargent's proposed remedy for the waste of forests in the older states is by state legislation, as forest lands in those states has passed out of the hands of government. This legislation should be designed to prevent forest fires, to check the recklessness of lumbermen, to stop the roaming and browsing of cattle—all destructive of forest growth, both old and young. He thinks that wherever the general government still controls forest area, notably on the Pacific slope, positive measures should be adopted to prevent a wanton waste of woods.

Prof. Sargent concludes his paper as follows:

"Looking, then, over the whole field, it is seen that the forests of the country, with a single important exception, are still capable of large production. It evident, however, that grave fears should be felt for their future extent and composition; that in all the eastern and central states regulation is required to protect the forests from fire and indiscriminate pasturage, and that in the interior Pacific region experiments in forest protection could, perhaps, be wisely undertaken, unless this region is to be entirely stripped of its forests. All protective legislation, however, will fail to accomplish the results expected from it unless backed by popular belief in the value of the forest. Such belief will come only with a better understanding of the importance of the subject; and the American people must learn several economic lessons before the future of their forests can be considered secure. They must learn that a forest, whatever its extent and resources, can be exhausted in a surprisingly short space of time through total disregard, in its treatment, of the simplest laws of nature; that browsing animals and fires render the reproduction of the forest impossible; that the forest is essential to the protection of rivers; that it does not influence rainfall, and that it is useless to plant trees beyond the region where trees are produced naturally. When these lessons shall have been learned, forest protection in the United States will be possible, and can be made effectual."

THE Buffalo *Lumber World* says:—Our exports of lumber and other building materials to Australia are said to be steadily increasing. They include pine, hickory, ash, and sycamore.

SUBSTITUTES FOR WHITE PINE.

The *American Architect* has the following editorial note on this subject:—

The announcement, made by authority of a Government bureau, that the white pine forests of the United States would, at the present rate of consumption, furnish less than twelve years' supply of that indespensible timber, although copied into most of the papers, has not received the general attention which it deserves, and probably will not until the advancing cost of pine lumber brings the lesson forcibly home to the public mind. This advance, has, however, already begun, the price of pine land in the great timber-producing States having doubled within a few weeks, and the question of the employment of some other material for the coarser uses of building is earnestly discussed among architects and contractors. On some accounts the substitution of hard wood for pine in the finishing of houses would tend to promote their solidity as well as their artistic interest, both of which are compromised by the universal habit of using hard wood only in the form of veneers or casing upon grounds of cheaper material; but a decided progress will have to be made in the art of seasoning and working the timber of deciduous trees before it can be used in large pieces in a way to satisfy those accustomed to the straightness, smoothness, and unvarying character of pine. For framing, spruce and hemlock, with whitewood in the Southern and Middle States, will probable soon occupy the field entirely, and the makers of lath and shingles will perhaps transfer their industry to the forests of hemlock or arborvitæ. For inferior finish, ash, oak, including many kinds now rejected, chestnut, black birch, walnut and elm may be turned to good account; while for exterior work the deciduous varieties will probably be introduced before long, for the sake of variety, if not of economy, and with them a style of design different from that now practised, to which they are totally unsuited.

WOOD FINISH.

Richness of effect may be gained in decorative woodwork by using woods of different tone, such as amaranth and amboyna, by inlaying and veneering. The Hungarian ash and French walnut afford excellent veneers, especially burls and gnarls. A few useful notes on the subject are given by a recent American authority. In varnishing, the varnishes can be toned down to match the wood, or be made to darken it, by the addition of coloring matters. The patented preparations known as "wood fillers" are prepared in different colors for the purpose of preparing the surface of wood previous to the varnishing. They fill up the pores of the wood, rendering the surface hard and smooth. For polishing mahogany, walnut, etc., the following is recommended:—Dissolve beeswax by heat in spirits of turpentine until the mixture becomes viscid; then apply by a clean cloth, and rub thoroughly with a flannel or cloth. A common mode of polishing mahogany is by rubbing it first with linseed oil, and then by a cloth dipped in very fine brickdust; a good gloss may be produced by rubbing with linseed oil, and then holding trimmings or shavings of the same material against the work in the lathe. Glass paper, followed by rubbing, also gives a good luster.

There are various means of toning or darkening woods for decorative effect—logwood, lime, brown soft soap, dyed oil, sulphate of oil, nitrate of silver exposed to sun's rays, carbonate of soda, bichromate and permanganate of potash, and alkaline preparations are used for darkening the wood; the last three are specially recommended. The solution is applied by dissolving one ounce of the alkali in two gills of boiling water, diluted to the required tone. The surface is saturated with a sponge or flannel, and immediately dried with soft rags. The carbonate is used for dark woods. Oil tinged with rose madder may be applied to hard woods like birch, and a red oil is prepared from soaked alkanet root in linseed oil. The grain of yellow pine can be brought out by two or three coats of japan much diluted with turpentine, and afterwards oiled and rubbed. To give mahogany the appearance of age, lime water used before oiling is a good plan. In staining wood, the best and most transparent effect is obtained by

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repeated light coats of the same. For oak stain, a strong solution of oxalic acid is employed; for mahogany, dilute nitrous acid. A primary coat, or a coat of wood fillers is advantageous. For mahogany stains the following are given:—two ounces of dragon's blood dissolved in one quart of rectified spirits of wine, well shaken; or raw sienna in beer, with burnt sienna to give the required tone; for darker stains boil a half pound of madder and two ounces logwood chips in one gallon of water, and brush the decoction while hot over the wood. When dry, paint with a solution of two ounces of potash in one quart of water. A solution of permanganate of potash forms a rapid and excellent brown stain.—*Building News.*

FATAL EXPLOSION.

LONGFORD MILLS, Oct 7.—R. C. Smith's mill about a half a mile north of this place on Lake St. John, has been shut down for some days to repair a steam pump which had got out of order. The pump was repaired last evening, when they pumped up the four boilers. This morning steam was got up and a start made at six o'clock. About 6.30 the glass water gauge on one of the boilers broke, and in about five minutes an explosion took place. A small boiler next to the mill exploded first and was blown to atoms, the larger portion of it falling fully two hundred yards off into the lake. The next boiler was blown up through the roof of the enginehouse, tearing the shafting and machinery and landed about fifty feet west of the mill. The third boiler was thrown out, and also the fourth. The fireman, Ellis, had his head blown off. Fred. Gray, a piler, who had just come into the engine-room, had his head cut two-thirds off, leaving only the face connected with the body. Dougal McFadyen received some bad wounds about the head, but will likely recover. David Roberts is badly bruised about the body, but he will likely recover. Fred Dinwoodie, the foreman, was stunned by something throwing him on a car, which was all smashed, but he miraculously escaped almost unhurt. Harry Gray was also hurt; Archy McFadyen was scalded badly, and several others received slight wounds. The cause of the explosion is as yet unknown. An inquest is now being held by Dr. Ramsay, coroner, on the bodies of Ellis and Gray, after which a report of the same will likely give some fuller details.

Ellis was a married man, leaving a wife and one child. Gray was unmarried. The mill is a total wreck, beams, boilers, shafting, and machinery being strewn around in every direction.

LUMBER INSPECTION.

The *Monetary Times* says:—The prospect for a large lumber trade between Canada and the New England States during the coming winter and spring, is very encouraging. In the east, general business is active, and with flattering prospects of the future; money is plentiful and builders are getting safe orders. For the past quarter of a century the building interests have not been in safer hands. To-day the master mechanic is generally the contractor, and as a consequence better work and material are given. Profits are not large, by reason of the great number of the competitors, and the extensive use of labour-saving machinery; but, owing to the large demand, fair profits may be made by all. During the dull times eastern dealers took advantage of the manufacturers and "forced" the qualities so that a No. 1 liner would be taken only as a common No. 2, and they continue these qualities to the present, to the disadvantage of the manufacturers. If the consumer ultimately gets the benefit, then it neutralizes and no harm is done to the trade.

Some western manufacturers resort to small business in filling orders from petty commission dealers in the east for lots of 10,000 feet, divided in many cases into five separate sales. This, of course, is not just to dealers, who are under expenses for skilled labour and wharf rent in the large cities, as it leaves them only odd jobbing orders. Were it possible one would like to see the sales regulated in the interests of legitimate trade—for these mushroom commission peddlers can hardly be considered in the business—and also as near as possible a fixed standard for qualities in the interests of manufacturers and consumers. In some places in the east, the quality and quantity of each invoice of lumber are supposed to be legally specified, in the interests of manufacturers and consumers. But this salutary law is now kept more in the breach than in the observance. In an important lumber centre like Boston, with a large staff of deputy surveyors, and a well paid surveyor general, all held under bonds to the State, for the faithful performance of their work according to law, it is safe to say that not more than three-fourths of the lumber that enters the port is submitted to legal inspection. We have no inspectors in Canada, as there are in Wisconsin, Michigan and Chicago, where the buyer and seller agree upon a man who shall inspect large purchasers in the interest of both parties to the transaction. Without any desire to find fault, we refer to these facts in the hope that all interested may be benefited.

TREE-PLANTING IN LONDON.

London is making progress in the matter of tree-planting, says the *Telegraph*. We have "street improvements," as they are termed, which cost enormous sums of money, but this is one against which no such objection lies, for it gives us a splendid return for a small outlay. The Metropolitan Board has done well in decorating the Thames embankment and Northumberland avenue with rows of trees which, with a little tender watchfulness, will grow into fulness of form and beauty by-and-bye. Several of the vestries and district boards are following the same track. We know there is a tendency to grumble at the "drip" from the branches in wet weather, and at the falling leaves in autumn. Some of the vestries are particularly sensitive in regard to these matters. It is said that the planting of trees in suburban roads began in 1875, but it is too probable that the number of trees cut down in the suburbs since that date have nearly equalled the number planted. It is at a point rather within the suburbs that improvement of this kind has been most conspicuous, and it is a happy sign when the fashion spreads as far towards the heart of the metropolis as Tooley street. Our forefathers must have been possessed of some good taste in this particular, if it be true—as apparently it is—that there is not a street in London from some part of which a tree may not be seen.

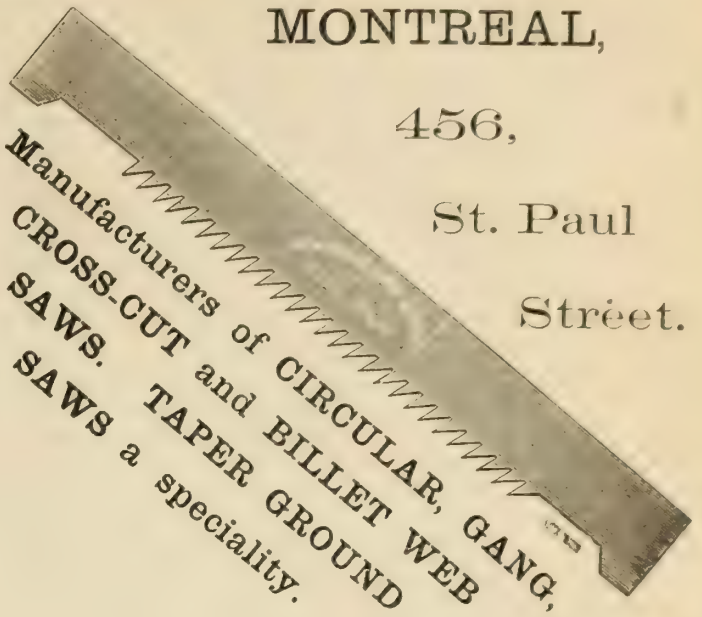
THE MONTREAL SAW WORKS

MONTREAL,

456,

St. Paul

Street.



General Mill Supplies always on hand.

General Mill Supplies always on hand.

Address all correspondence to Chas. M. WHITLAW,

L20

MANAGER.

ARRIVED AT QUEBEC.

The *Chronicle* gives the following list of rafts, etc., arrived at Quebec:—

Sept 22—D & J Maguire, deals, etc., Cap Rouge.

Sept 25—Gilmour & Co, deals, sundry places.
Sundry lots, staves, do
Collins Bay Co, staves, do

Sept 26—D D Calvin & Co, (2), oak, etc, Dobell's and other coves.

P Letendre, white pine, etc, Ringsend Cove.

Ross & Co, board pine, etc, New Liverpool Cove.

Sept 27—P McLaren, white pine St. Lawrence Docks.

Sept 29—Guy, Bevan & Co, spruce deals, Amqui, P. Q.

Oct 2—Coote Bros, waney white pine, elm, &c, sundry coves.

O Latour. white pine, Cap Rouge.

C Wright, board pine, do.

B P Fleming, deals, etc, Connolly's Mills.

Oct 4—Collin's Bay Co, oak, pine, etc. sundry coves.

J M Irwin, white pine, &c Woodfield Harbor.

Oct 5—Gordon & Co,'s and Connolly Weller, Lots, white pine, etc., New Liverpool.

W C. Edwards & Co, tamarac, Cap Rouge.

Canada v Michigan.

The Bay City *Lumberman's Gazette* says:—Already crews of men are being sent into the pineries, and soon the preliminary work of securing the logs which shall supply the mills next season will be well under way. There is a good demand for men, and they are scarce. The rate of wages paid in Canada this year is about as high as in Michigan, which has the effect to keep the Canadians, on whom Michigan has always largely depended, at home, and the Wolverine state is looking elsewhere for her help. This of course effects the supply for the Wisconsin and Minnesota pineries, and jobbers are now offering about $2 per month more than was paid last season. The good crops have, however, effected a marked reduction in the cost of supplies, although they are still high.

THE *Lumberman's Gazette* says:—The signs of the times from a St. Louis standpoint indicate that an extensive change is likely to take place in the lumber business within a few years. The great mills at Eau Claire and Chippewa Falls are fast making arrangements to pile and dry the greater portion of their product, and ship it direct to its destination in Western Minnesota, Iowa, Kansas, and Nebraska by rail, instead of running it to the Mississippi towns in rafts and hence on the cars.

THE Cowansville *Observer* says:—Messrs. W. Watkins & Son have the frame of their new saw mill on the L'Avenir line up and enclosed ready for the machinery. They put up a portable saw mill and have cut all the lumber for their own buildings, all required for the bridges on the line, and have shipped considerable to other parts. Their new mill is 50x100 feet, and they are putting in engines sufficiently powerful to run two gangs of saws, besides edgers and trimmers, etc., but will only put in one large circular this season.

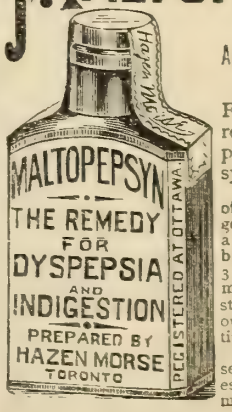
THE Ottawa *Free Press* says:—Allan, Grant & Co., ship daily two trains of square timber of 20 cars each through here from Pembroke to Quebec. They are made up at Pembroke, to where they are floated down the Upper Ottawa. They have a contract for 2,000 cars. All this timber used to go down the Ottawa in rafts.

THE Ontonagon Lumber Company has sold its entire possessions, including mill and other buildings, at Ontonagon, Mich., and its standing timber on the Ontonagon river, to the Diamond Match Company, of New York, the consideration being about $700,000.

MALTOPEPSYN

AN

Artificial Gastric Juice.



A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the rules of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

THE U. S. TARIFF.

At the meeting on Wednesday, Sept. 27th, of the Chicago Lumberman's Exchange, the following address was read by Mr. Dean :—

The forty-seventh congress having authorized the appointment of a commission for the purpose of gaining information directly from the people upon the subject of the present tariff, the gentlemen comprising the said commission, as we understand the scope of their duties, intending to recommend to congress amendments to the tariff law, when it shall appear them, from good evidence, that the people of the United States will be benefitted by such changes, and we believe most earnestly that the time has come when it would be greatly to the interest and good of the people of the United States to remove the present import tax upon lumber, which may conveniently be brought to them from the Dominion of Canada. In support of this argument we would say that the wonderful growth of the United States, and especially the development of that portion laying west of the lakes, has been due to the readiness with which cheap dwellings, barns, fences and graneries were obtainable through the plentifulness of a cheap building material, such as is found in the white pine lumber supply. With the exhaustion of this supply, the still vast unsettled prairies and fields of the west, will, in a measure, cease to present inducements to the emigrant from foreign lands, the unoccupied overflow from the older states of the Union, or the inducements for development afforded by the building of railways and other highways of commerce.

That the time is not far distant when the lumber supply of the Northwest will be practically exhausted, and that evidence of that exhaustion are even now quite apparent, will be disputed by no well-informed person.

It is but a few years since the value of standing pine, of good quality, averaged from as low as 50 cents to as high as $2.50 per thousand feet; the value of the same grades of timber has risen at the present time from $3 to as high as $8 per thousand feet, an average value being, probably, fairly stated at from $4 to $5 per thousand. This value is still further advanced to the consumer in the fact that a majority of the present timber supply is remote from streams, and consequently more expensive of access.

The efforts of the United States census commissioners to ascertain the extent of the timber supply of the United States, has resulted in a report, under the sanction and approval of that bureau, placing the timber supply of the three principal pine producing states at but 81,-000,000,000 feet, or an amount equal to the demands of the country for a period of eight years, based upon the present consumptive demand. Aside from the states of Michigan, Wisconsin, and Minnesota, the white pine timber resources of the country are insignificant, and while the supply of other kinds of timber in the South, and elswhere, is reported as adequate for the needs of a full generation, there is no other variety of timber which can take the place of or is adapted to the same uses as white pine, unless it be the cypress of the South, unavailable for many economic reasons, or the whitewood or (tulip) more valuable for other commercial uses than as a substitute for pine as a building material.

Aside from the supply of white pine in the 3 states above mentioned, in the Dominion of Canada their exists, a quantity equal, according to the opinion of many experts, who have considered the question, to the present remaining supply of the United States. We believe that it is in the interests of a good and wise policy to admit this timber to the United free from the incumbrance of a tax. We assert that this timber has cost, and does cost, those who control it for utilization a larger sum per thousand than was obtained by the United States Government from those to whom the timber lands of this country were disposed; that the cost of manufacture in Canada is not below the cost to the American manufacturer; and that the average cost of transportation of a majority of that portion of the present Canadian pine which would naturally reach the United States market, is considerably in excess of the cost of placing the native product in the hands of the consumer. These combined factors preclude the possibility of any injury resulting to the American manufacturer from the admission of foreign lumber.

In support of the first proposition, we assert that the liberal policy of the American Government has permitted the timber lands of this country to be purchased in fee-simple at from $1.25 to $3.50 per acre. These lands are estimated in general to yield 5,000 feet of timber per acre, while a large proportion of them have and will yield from 10,000 to 15,000 feet per acre. The standing timber, therefore, has been sold by the government at an average probably less than 25 cents per thousand feet, including the ownership of the land, which in many cases readily sells at from $5 to $10 per acre after being denuded of its timber, such land being found in many parts of Michigan, Wisconsin and Minnesota to be unsurpassed in value for agricultural purposes. From the land and timber for which the government has received, at its highest established price, $1,600 per square mile, the manufacturer of lumber has realized, and is now realizing, 3,200,000 feet of timber of an average stumpage value at the present time, as stated by the Saginaw manufacturers, in an address recently presented to the congressional special tariff commission, of $4.50 per thousand, or $14,400 per square mile, to which may be added the market value of the land for agricultural purposes, which, if stated at $2.50 per acre, or $1,600 leaves the case to be stated, simply, that the government has presented $14,-400 in timber to each purchaser of a square mile of timber lands. This we esteem to be fully all the protection to which the manufacturer of the United States is entitled at the hand of the government.

Comparing the policy of the American government with that of Canada, we find that it is the policy of the latter to place its timber lands in groups of townships, which are offered to the highest bidder at public sale, of a bonus for the privilege of cutting off the timber. This bonus or privilege usually costs the purchaser not far from 35 cents per thousand feet, after which, under many and usually expensive restrictions, the government claims a stumpage duty of 75 cents per thousand on all timber actually cut, in addition to local taxes of about $100 per year, per square mile or an average of about 3 cents per thousand feet, a total stumpage cost of over $1 per thousand paid to the Canadian Government, the ownership of the land remaining in the government.

While, therefore, the American timber owner investing of necessity but $1,600 to secure 3,-200,000 feet of timber (actually securing nearly, or quite double that amount as a rule) realizes from the value of his timber and the sale of his land $16,000, the purchaser of Canadian timber pays to the government not less than $3,200 without any rebate, in the value of the land, for the purpose of securing the net quantity of 3,200,000 feet of timber. The Canadian lumberman, in a country less favourably situated for railroad transportation of men and supplies to the camps, is consequently at greater expense in his preparatory work, and as the contiguity of the two nations enables a ready interchange of labor, it follows that with a larger number of laborers, bred to the work of the lumber camp, the Canadian laborer seeks work on American soil whenever the rate of wages between the two countries is greatly disproportiongd, thus compelling the Canadian employer to pay nearly or quite as high rates of wages as prevail in the more extended lumber regions of this country, if he will retain his laborers.

The food markets of Canada are based in values upon those of the United States, so that in the staples which enter most largely into the business of lumbering; namely, grain for teams, flour, beef, pork and beans, for the men; the average expense of camp supplies is to the Canadian operator, but little if at all less than to the American. In the running of logs to the sawmill, the expenses again are not far from equal, the general comparison of streams in the two countries being if anything in favour of the American.

The capital invested of necessity in pursuit of this industry is greater in Canada, in proportion to the extent of the work performed, from the necessity to acquire the large land limits, which alone can be obtained from the Canadian government; the American government selling as low as 40 acres at a cost of not over $100, while nothing less than a township is disposed of by the Canadian government. The number of men employed is not less, per thousand feet produced, in one country than in the other, and the capital employed in saw-mills will bear the same comparison. It would be folly to assert that greater intelligence enables the Canadian laborer to preform a greater amount of work in the saw-mills than does the American, while it is a fact that by improved methods and machinery, more generally adopted in this country, than in Canada, the cost of producing lumber is greater in Canada than in the United States. In the matter of transportation the Canadian again labors under a disadvantage in being, in the main, and especially in the western portion of the province whence must come a majority of the timber, at a long distance from markets, whereas the American operator can utilize lake or rail transportation at his pleasure, and with but short lines and a low freight rate. The disadvantages under which the Canadian operator labors we assert to be more than the equivalent of any superior advantages he may possess, so that it may with possitiveness be assumed that Canadian lumber laid down upon the docks of Chicago, or any other distributing centre, will have cost the Canadian as much, if not more, than the same quality of stock has cost the American manufacturer at the same point.

Having demonstrated, as we believe, that the American government has dealt more liberally with the American timber owner, than has the Canadian, pointing to the statement of the Saginaw manufacturers, before referred to, in wnich by their own admission the royalty on Canadian timber is $1.75, or nearly double what we have assumed it to be, as further evidence that our estimates are wholly within bounds, we next controvert the statement of the Saginaw memorial in which the liberality of the Canadian government in building piers, booms and slides is pointed out, by referring to the general policy of the American government with regard to navigable waters, pointing to the river and harbour bill, appropriating an additional $17,500,000, no mean proportion of which was devoted exclusively to improvements in the localities where the lumber interest is benefitted to a greater extent than is any other individual industry.

Analysing the statement of the Saginaw memoralists, we have shown that while the Canadian lumberman has paid to that government from $1 to $2 per thousand stumpage on the timber cut by him, the American government has virtually presented to the lumberman of this country each section of pine land, together with the timber on the same, of a value of $14,400, for the mere nominal sum of $1,600 or, as he can readily realize that sum for the stripped lands, has made him a gift of the timber for his labor in clearing it. The census bureau reports 1,649 lumber manufacturing establishments in Michigan, 234 in Minnesota and 704 in Wisconsin, a total of 2,587; assuming for arguments sake that the number is 10,000 and asserting, as we believe, that no timber interests, except those connected with the lumber manufacturers of the states named, are to be affected by a abrogation of the tax on lumber, it would seem that after giving $14,400 with each section of pine land to 10,000 manufacturers of lumber, it was now the duty of the government to consider the interests of the consumers of lumber, represented by over 5,000,000 persons to each 1,000 manufacturers.

These have a right to claim that the timber which has been donated to the manufacturers by the government shall be provided for their use at a reasonable modicum of profit to the manufacturer. With a yearly destruction of the forests, the timber donated by the government to the manufacturer has risen in value until it is no uncommon thing to hear of sales of standing timber at the rate of $8 and $10 per thousand stumpage, while the average price, as stated by the Saginaw lumbermen, is not far from $4.50. The average price in 1870 was below $1 per thousand. The consumer has been compelled to pay this difference, and if values advance in the same proportion during the present decade, he will be called upon to pay to the manufacturer not less than $20 per thousand stumpage on timber donated to him by the government.

When we consider that the annual manufacture of lumber in the three states mentioned exceeds 8,000,000,000 feet, and that this slaughter of the home forests means the destruction of 2,500 square miles of timber each year, and at this rate that there is but an eight years' supply to draw from, it would seem the part of prudence to begin to purchase some portion of our supply from those who have it for sale, before the time when absolute want shall force us to buy it at the sellers asking price.

Some gentlemen claim that there are climatic considerations that have a bearing upon the subject, that the destruction of our forests will affect unfavourably the productive force of our soil; this branch of the subject we leave with those persons interested in agriculture.

The Saginaw committee claim that the settlers, by crowding in upon their pine lands to make clearings for farming purposes, destroy by fire all their pine forests, and for relief desire to cut off the trees as rapidly as possible, so as to save them. We seriously question this statement, not believing that the averge thrifty farmer seeks the pine belt in pursuit of his occupation, but from our own knowledge believe that the forest fires are in the main brought about in consequence of the accumulation of the limbs, bark and chips that become dry and easily ignited shortly after escaping from the lumberman's axe. Hence we should say that a good way to preserve forests from fire would be to stop filling them with bonfire materials.

The Saginaw memorialists say, "When our government can furnish lands upon such easy terms as that of Canada, free trade in lumber might be nearer just." Having shown that our government has been even more liberal to the lumber manufacturer than to any other class of our citizens, and vastly more so than has the Canadian government to its manufacturers, and having demonstrated that the cost of lumber to the Canadian producer precludes any possible danger of his entering into ruinous competition with the American manufacturer, we respectfully submit that the short supply of native stock, and growing demands of a mighty nation, the interests of 55,000,000 of people in cheap homes, and manufacturing industries needing the consumption of pine lumber, imperatively demand that all restrictions should be removed from the importation of that limited quantity which the Dominion of Canada can supply to supplement our rapidly decreasing timber resources.

For the above reasons and many others that might be given, we most earnestly pray that all duty upon pine lumber, lath and shingles may be removed, to the end that the people of the United State, and particularly of the States and territories to the west of us, may improve the rich prairies, and at moderate expense construct their buildings and homes from the products of the forests of Canada, as similar material grown in the United States has become so nearly exhausted and cannot be reproduced.

After a long and warm debate on motions for adopting the address, for laying it on the table and for referring it to a committee, this last motion was carried by a vote.

A committee was chosen to handle the question and report in 15 days to a called meeting, consisting of Messrs. Thad Dean, B. L. Anderson, A. C. Soper, A. G. Van Schaick, Addison Ballard, James P. Ketcham and S. K. Martin.

NATIVE FORESTS.

While there is much said and written in regard to forest tree-cultivation, we find very little attention paid to the preservation of native forests. In the timbered sections we have been too busy trying to get rid of the timber to think of any method of preservation. Yet in some sections that were formerly timbered there is now felt to be a scarcity of timber, particularly of that kind which is useful in manufactures. The only remedy mentioned is the planting of forest trees for this purpose, but this is a work that we are hardly prepared for in this State, and it is probable that only necessity will compel artificial planting. The time seems too long to wait for an investment of this kind to

begin to pay, and there are very few who will undertake the work. At least very little has been done in this line. At the Agricultural College an experimental arboretum of four acres has been growing a few years; and a farmer in Monroe county has this year set 1,500 black-walnut trees with a view to grow them for timber.

Would it not be well to study more closely the possibility of improving the timber lands that still remain. The woods still standing contain a vast amount of material which is susceptible of development in far less time than would be required for the planting and growth of new forests, the neglect of which furnishes a striking proof of the general ignorance of forest culture. The timber is ruthlessly cut from many places that are nearly useless for cultivation after, and would be worth far more for growing timber than for any other purpose, more beautiful to the eye and more profitable. In many instances the native woods have been so much neglected or so much injured as to be past redemption, yet there are still large areas of forests aad smaller groves and wood-lots now yielding no revenue which might be developed into timber forests of very great value and at the same time yield an annual crop of firewood in the process.

Cut out the dead and least valued timber for firewood, preserve the small growing trees that are of the best varieties for timber. It will be necessary for the best care of the forest to keep stock from running in it, as they will totally destroy all small growth. In almost every tract of woodland may be found more or less of trees of the best varieties for timber mingled with a great variety that are worthless or only fit for fuel. In many cases they have been neglected and cannot be improved, but in most cases intelligent work in thinning and pruning will be followed by profitable results.—*Detroit Post.*

MUSKEGON LUMBERING.

An exchange says:—I had a few minutes pleasant chat at the Everett house last evening with Col. Fuller, one of the Muskegon lumber kings. Col. Fuller is an old "state of Mainer," and takes to a pine tree as naturally as a Bay City newspaper man does to Anderson county budge. He has been operating largely in this state a number of years. He told me that under the most favourable circumstances it is calculated that at the close of rafting operations there will be in the neighbourhood of 200,000,000 feet of logs back. The strike at Muskegon is largely responsible for this. He said manufacturers there are obtaining good prices for lumber. Many of the mills are running nights, and a considerable quantity of lumber is cross-piled. Should the fall be favourable he is of the opinion that the cut of the mills at Muskegon will approximate that of last season. He said that logging will be carried on on the west side on a large scale the coming winter, nearly everybody is going into the woods. The Col. purchased a branch railway nearly three miles long, tapping a tract of pine in Clare County, from which he calculates to cut 15,000,000 feet of logs, which will be put into Lake George, and they will be thence hauled over the Lake George & Muskegon railroad, and put into the Muskegon.

A curious double pine tree is said to be growing near the line of Green and Jackson counties, Miss. Two distinct trunks rise from the ground, and unite 30 feet above, forming one solid trunk, round and symmetrical.

Baxter's Mandrake Bitters never fail to cure Costiveness and regulate the Bowels.

The Wild Strawberry plant posseses rare virtue as a cleansing, cooling, astringent, antesptic, and healing medicine, and when combined with other valuable vegetable extracts, as in Dr. Fowler's Extract of Wild Strawberry, it is an unfailing remedy in all Bowel complaints.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you,

CHICAGO SHIPMENTS.

The *Northwestern Lumberman* says:—The secretary of the Lumberman's Exchange has been at work for some time past in endeavoring to arrive at a correct basis for calculating the shipments from this city, and has ascertained that the average weight of 32,150,000 feet, shipped by promiscuous dealers during the month of August, was 2,475 pounds per thousand feet. This embraced 2,805 cars, averaging 11,105⅞ ft per car. Upon this basis he estimates the Aug. shipments by rail and canal at 138,958,756 feet, or 74½ per cent., leaving 47,564,285 feet, or 25½ per cent. of the total, to make up the 186,522,041 feet shown by the September inventory to have been disposed of during August. Upon the same basis it is figured out that the volume of trade for September differs but little from that of August, the rail and canal shipments to August 26th being 124,000,000 feet; estimate for four days at some proportionate rate, 23,620,000 feet; city consumption (add one-third), 49,207,000 feet, leaving the estimate of the September shipments at 196,827,000 feet. It will take a few weeks' test of the basis to determine the value and correctness of the figures. The percentage of city consumption will not astonish the readers of this journal, who have noted our estimates of from 20 to 24 per cent. for the past three years.

Among the many industries of Rockfort, Ill., furniture making is one of the most important ones. The Forest City Furniture Company, whose plant covers an entire square, has among its facilities a dry kiln capable of containing 50,000 feet of lumber, and has on hand in the yards 2,000,000 feet of walnut, ash, whitewood and basswood lumber, which is being consumed at an average rate of 125,000 feet per month. TheUnion Furniture Company has on hand 500,000 feet, and dries all that is used in the open air. The Central Company uses about two car loads of ash and walnut lumber per week, and will erect a dry kiln next spring. The Rockford Co-operative Furniture Company has a dry kiln with a capacity of 24,000 feet, and has on hand about 1,000,000 feet of walnut, in addition to the other kinds used, using about 7,000 feet of walnut per week. The Rockford Chair and Furniture Company has just built a dry kiln with a capacity of 40,000 feet, and will use chiefly ash. The Excelsior Company also operates heavily.

Sure, safe and effectual, that old remedy, Downs' Elixir, for the cure of Coughs and Colds.

W. H. Crooker, Druggist, of Waterdown, under date of June 1st, writes that "Dr. Fowler's Extract of Wild Strawberry cannot be surpassed, when all other remedies fail then it comes to the rescue, and I find the sales large and increasing." Wild Strawberry positively cures all Bowel complaints.

EARS FOR THE MILLION

Foo Choo's Balsam of Shark's Oil

Positively Restores the Hearing, and is the only Absolute Cure for Deafness known.

This Oil is abstracted from peculiar species of small **White Shark,** caught in the Yellow Sea, known as Carcharodon Rondeleth. Every Chinese fisherman knows it. Its virtues as a restorative of hearing were discovered by a Buddhist Priest about the year 1410 Its cures were so numerous and **many so seemingly miraculous,** that the remedy was officially proclaimed over the entire Empire. Its use became so universal that for **over 300 years no Deafness has Existed among the Chinese People.** Sent, charges prepaid, to any address at $1.00 a bottle.

Hear What the Deaf say!

It has performed a miracle in my case.
I have no unearthly noises in my head and hear much better.
I have been greatly benefited.
My deafness helped a great deal—think another bottle will cure me.

"Its virtues are UNQUESTIONABLE and its CURATIVE CHARACTER ABSOLUTE, AS THE WRITER CAN PERSONALLY TESTIFY, BOTH FROM EXPERIENCE AND OBSERVATION. Write at once to Haylock & Jenney, 7 Dey Street, New York, enclosing $1.00, and you will receive by return a remedy that will enable you to hear like anybody else, and whose curative effects will be permanent. You will never regret doing so."—*Editor of Mercantile Review.*

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RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
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and a thousand other diseases that owe their origin to a disordered state of the Stomach and Bowels, and inaction of the Digestive Organs, when the use of

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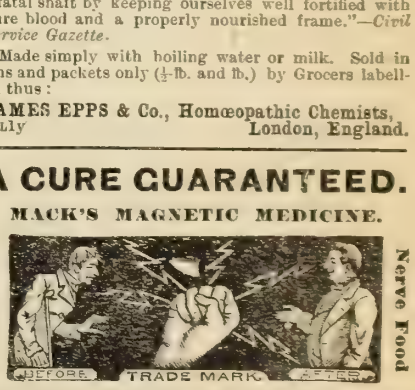

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THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

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PETERBOROUGH, Ont. OCT. 16, 1882.

IT is thought that half a dozen men have grabbed all the timber land on the north shore of Devil's lake, Dakota, and that the military survey for a reservation, lately ordered, is in their interest.

FIVE Menominee river companies have decided to cut a wagon road along the Michagamme at once, the intention being to cut some 30,000,000, feet of logs on that stream this winter, and camps are now being located.

A STOCK company has been organized at Muskegon by C. C. Ballinghurst, J. B. Champaigne, E. L. Davis and others, to engage in manufacturing shingles. The stock is $30,000, and expect to make 400,000 shingles per day.

A SPUR track is being built from the Eau Claire Lumber Company's new mill, above Thorpe, Wis., to the Wisconsin & Minnesota railroad. Hardwood lumber will comprise a portion of the produce of this mill.

THE Chippewa Logging Company, Eau Claire, Wis., has bought from William Griffiin, of Troy, N. Y., about 42,000,000 feet of pine standing upon land on the Little Elk and on the west fork of the Chippewa. The price was $120,000.

THE Albany correspondent of the *Lumberman's Gazette* says :—Spruce and hemlock. from the Champlain canal have been received in good quantities, and the market has now a large stock all kinds, which will be keep up from continuous arrivals from the mills now well supplied with water,

THE Ottawa *Free Press* says :—Although Mr. Poupore has been appointed to the Crown timber agency at this city by the Dominion Government, he cannot act for Ontario or Quebec till the governments of those provinces formally enable him to do so. The Quebec Ministry will, of course, be agreeable, Mr. Chapleau having some time ago accepted the nomination of Mr. Poupore. Ontario remains to be heard from, but we are told that no difficulty is anticipated from that quarter,

AN Ontario merchant who has been on a visit to the Northwest, in a description of the neighhood of Edmonton says :—"There is no pine, but the Norway spruce grows to a large size and makes good lumber. I saw sticks two feet in diameter, and any quantity can be had from the Beaver Hills for building purposes of from one to two feet in thickness."

MESSRS. Campbell, Campbell & McKenzie, of Lachute, P. Q., are putting up a new steam saw mill to cut 8,000,000 feet of lumber per annum. The foundations are built, and the timber for the building has arrived on the spot. The paper mills of Mr. I. C. Wilson, at the same place, are very busy, as are also the woollen mills, rope factory, and other industries of this thriving town.

AN Anoka, Minn., mill sawed a stick of timber 68 feet long 20 inches in diameter at the base, and 13 inches at the top, ordered for the electric mast at St. Paul. After being loaded safely on the cars, it rolled back, and 20 feet of the small end was broken off, demonstrating that there is many a slip. The entire pole is now spliced and planted at St. Paul, and is said said to be over 100 feet in height.

NEARLY a century ago, when earthenware was coming into use, Robert Bloomfield wrote :—

"Trenchers for me, said I,
That look so clean upon the ledge,
And never mind a fall,
And never turn a sharp knife's edge—
But fashion rules us all."

The obsolute wooden trencher is now being revived in the United States. A factory in North Carolina is said to be turning out 10,000 wooden plates a day.

THE Winnipeg *Sun* has a despatch dated Rat Portage, Oct., 2, which says :—An agent of a Minnesota lumbering firm arrived her on Saturday night from Fort Francis. He reports the discovery of fifty million feet of magnificent pine timber on the Little Fork River. It is probable the limits have already been secured at St. Paul, and that operations will commence this winter. This will prove a great advantage to Fort Francis, and must increase its trade immensely.

THE *Lumberman's Gazette* of Bay City, Mich., says :—The fall demand for lumber having set in, exhibits a very gratifying condition of trade throughout the country. Prices are still maintained, with no apparent tendency towards a decline, and in fact, no good reasons for a decline can be given. It may be set down as an established fact that the boom in lumber will be continued unless a financial disaster should overtake the country generally, of which there is no probability.

J. B. BASSETT & Co., of Minneapolis, Minn., have adopted a new method of handling lumber, doing away with a slow process that has all along been in vogue at the Minneapolis mills. Lumber has been hauled from the mills on wagons a distance of from a quarter of a mile to a mile and a quarter, where it was piled, and when dried, hauled a considerable distance to the planing-mill. Bassett & Co., now drop their lumber upon ordinary platform cars, and these are switched over the Manitoba line to the company's new yards, and side-tracked to the piling grounds. It is farther, but the expense is less.

THE following items are from the St. John, N. B., *Sun* of Sept. 30 :—A new safe from Messrs. Goldie & McCulloch, Galt, Ont., was placed in the Maritime Bank, yesterday afternoon.——Messrs. R. Roberts & Co., which partnership includes Mr. R. Roberts and the firm of Gunter & Co., of Indiantown, are building a shingle mill at Marble Cove for the purpose of sawing cedar shingles. It is expected to be ready in about a month, and two machines will be put up to start with. The boiler is being manufactured by Messrs. D. McLachlan & Sons. Messrs. Gunter & Co. have been engaged in the cedar shingle business for some years, but they now find the trade going away from them, as the cedar from Aroostook is being carried away to the United States.

THE single cork oak tree at Tallahassee, Fla., was dismantled by a recent storm. It was 30 feet high and in a thrifty state. Some 25 years ago thousands of cork oak acorns were sent out by the patent office to California, for experimental purposes. Very few of them, though planted more from curiosity than otherwise, produced plants. There is one cork oak tree growing vigorously at Sonora City, one or two in Napa valley, and they are not infrequent in the southern section of the state. Those that are growing have attained considerable size and show a fine quality of bark.

IT would appear that American walnut was in demand a long time ago, albeit it is to-day regarded as one of the woods of modern fashion. A correspondent writes us :—"Many years ago I was sent by my employers to Titusville, Penn., to buy black walnut, which was required for the making of some extensive counter tops. The title of the firm from which I bought was "Hatch & Patch," lumber dealers. I have always remembered the title by reason of its singularity." In those days the value of American walnut was at a low ebb. Modern taste in respect to woods has added enormously to its former value, and the time may not be far away when we may find American walnut ranking in value with mahogany.

THE St. John *Sun* says :—We hear of some extensive lumber purchases by Mr. Gibson in the last few days. It is said he has bought all of Mr. Murray's logs and deals—some 25,000,000 feet—and has taken all of Mr. Hamilton's season's cut, probably 3 to 4 millions more. These with his home supply and some 10 to 12 millions which he will buy from outports, will give Mr. Gibson probably 80 to 85 million feet for shipment this fall. A large tonnage will be required, of which sufficient for 20 to 25 million feet has already been secured. Deals are holding their price well in England, and freights, no doubt, will fall. It is altogether likely that both those who are selling at home now and the shippers to England will do well on what will go forward this fall.

LEGISLATION ON FORESTRY.

At the recent Forestry Congress at Montreal the following paper was read by Mr. P. J. U. Beaudry, of Beauharnois :—

MR. PRESIDENT AND GENTLEMEN,—Although I could not easily resist the temptation to comply with the invitation so gracefully wired me yesterday by the worthy vice-president of this Congress, I feel that I must beg from you a great amount of indulgence.

Accustomed to the quiet of my little study I am more familar with the leaves of law books than with those of the forest kings. I feel as if I were treading an almost foreign ground where, besides, I must speak an almost foreign language. One thing only I can say : Have hopes, because I am of the opinion of he who said that any lecture should not last more than twenty minutes, and that with a strong recommendation to mercy.

The destruction of our forest trees has for some time past been a matter of regret to the artist and to the lover of the picturesque. It was sad, indeed, to see the bush growing steadily smaller every year, leaving the eye to wander over a barren plain, and this in a country where in Evangeline's time

"Stood the forest primæval,"

that bush where, in younger day, one had perhaps broken his best pen-knife in trying to commit to the bark of a friendly tree the name of a sweet companion.

But this is not the worst. Tender memories and the love for a beautiful landscape do not occupy much of the time of a mind whose sheltering locks are turning grey, and then the mind will turn to wider speculations and from the thinning of a favorite bush will drift to the wanton destruction of our far away forests, so important an element in the national prosperity, a destruction brought on either through fires started by guilty negligence or by wilful stubbornness, either by the indiscriminate hacking down of all trees within the conceded limits of Crown lands.

Now I am happy to say that, thanks to the unremitting efforts of a few patriotic minds, another spirit prevades our legislation. If the movement be only continued for some years and gone into thoroughly, the fears of many will be removed.

In 1875 an act was passed authorizing the Crown to reserve some parts of the Crown lands which may be placed under regulated cutting.

The last session has given us two important statutes on the subject. We have one relating to the saving of pine timber on lands conceded by the Crown and one offering a premium for the planting of forest trees.

Should not the legislature go a step further? Why not also impose regulations upon the cutting on all timber limits sold by the Crown? Surely in a matter of such importance, the salary of a few keepers would not be of great weight.

One article in your programme points to the utility of roadside planting—an idea which for years I have done my best to promote, but an idea, which in many parts of Lower Canada, seems to be little understood. I remember about our little town a row of trees which used to line the property of a Scotch gentleman well known there ; after his death the property went from hands to hands until it came to a very respectable, but not over bright farmer who cut down all these noble trees because, forsooth, they prevented his wife from watching the people go by.

Now, I know well that we live under a constitution claiming to leave the subject as untrammelled as possible, and I do not supppose that our wise men would care to pass a statute compelling every land owner to line his property with trees, but perhaps the honorable gentleman who, yesterday, presided at the Congress, and who has given the subject of Forestry so much of his valuable attention, perhaps he might find it possible to put in our municipal code some means of encouraging roadside planting. And I am sure that party politics would be laid aside if one could bring our people to make of the lonely country roads fine avenues of shade trees, beneficent alike to the sweltering wayfarer and to the poor dumb animals that I have often seen seeking, through very instinct, the thin shades of the rail fence when under the scorching sun in the pasture fields.

There is also the subject of bush fires, where legislation might improve existing matters. A penalty of fifty dollas and costs or three months seems to be rather inadequate if you bear in mind that some times such accidents as lighting a little fire in the bush have caused whole townships to be swept over by the fiery wave, which even threatened some of our cities.

Here would you allow me to leave legislation aside for a moment.

With regard to clearing lands for agriculture, I once, long ago, read of a scientific way of destroying stumps, which is perhaps worth studying and trying. I read that if a hole were bored in the heart of the stump—pretty deep—into which would be poured some sulphuric acid, carefully avoiding to burn the head of the opening, if then the whole were tightly covered with a flat headed piece of iron, the result would be that the stump within the ground would rot away in a short time leaving a rich manure to be turned over by the plough.

This theory is not new—is it true? I leave it to the experience of wiser men. But certainly if it be practicable it would put an end to dangers of bush fires from the clearing of lands.

I am done Mr. President ; I have only to add my homble share of thanks to the Congress for having honored our Canada with this year's session and to hope that it will not be labor lost.

May we one day see our people, awakened to a clear idea of their interest, protect their forests—cultivate their bushes by cutting away the underbrush and giving air, light and strength to the trees—shade roads and, not last nor least to an artist's eye, make a green garden of our beautiful country.

MONTREAL NOTES.

The Montreal *Gazette* of October 6th, says :—A fair local demand is experienced for hard and soft lumber, more especially for the former, which is wanted for the American market. The stock of ash is somewhat small compared with

that of former seasons, and some of our large dealers say they have no surplus to spare American buyers who are looking around for it. A large export trade continues in lumber for South America and in deals for the United Kingdom. The shipments of both lumber and and deals will be heavy at the end of the season, and will largely exceed those of the previous year. Freights to U. K. ports are quoted at 70s. for deal, and to River Platte $16 to $17, but at the moment there are no sailing vessels offering. Prices remain unchanged.

SPRUCE IN ENGLAND.

THE *Timber Trades Journal* says :—Information which has been handed us this week, certainly leads us to the conclusion that spruce deals, and some other Canadian woods, may reach a still further advanced price. In the matter of spruce deals in particular a number of circumstances point to an increase in their market value. It is thought that even in the event of some considerable arrivals coming into the great west wood ports during the next few weeks the demand will be equal to anything short of an excessive supply. But it is not probable that an excessive supply will come to hand ; and should it happen that the anticipation of those who look forward to only a limited supply being received be fulfilled, we may see spruce deals this side of Christmas realize very high figures. Of course the higher market value of spruce will, under any circumstances, be limited, by reason of the competition which will soon occur from the eastern ports, where stocks of whitewood are said to be heavy. Already, however, it is reported to us that the effect of the higher prices and limited stocks of spruce on the west coast, is being experienced on the east coast, where the markets for whitewood generally are firmer, and it may be that to some extent the other whitewood markets will follow the direction taken by the spruce markets. Whatever may be the ultimate issue, we fail to find at the present moment any existent signs of weakness in the market for spruce, while there unquestionably are many circumstances which would lead us to suppose that the increased values have not yet attained their full limit.

MIDLAND, ONT.

A correspondent of the Midland *Free Press* gives the following items :—

THE B. C. L. & T. Co.'s general superintendent expects to move into his new house on the 1st of November.

THE Company's large house on the hill is occupied on one side as a boarding house by Mr. Secord, which is being fast filled up with a nice lot of lady and gentlemen boarders. The south side is occupied by Mr. Benson. the manager at Midland.

MESSRS. CHEW & WEEKS have a large contract to saw cedar shingles for the Company, and McLeod & Cameron are also busy cutting lumber, ties, and shingles for the same firm.

THE B. C. L. & T. Co. have given instructions to their mechanical superintendent, Mr. Thompson, to erect a burner at the new mill, for cremating slabs, and also a gang in the same mill, as well as another circular saw at the old mill. "Onward we march."

AND again is not that indefatigable John Dollar to enlarge his mill the coming winter. Carpenters, get your tools sharpened, for it is further said that Chew Bros. are contemplating an enlargement and a cedar mill for the B. C. L. & T. Co. is also on the bill of fare.

THE B. C. L. & T. Co. are shipping large quantities of ties to American markets, and cedar framing posts to Toronto.

FLAMING REDWOOD.

A recent account of a forest fire in the vicinity of Redwood, Cal., stated as follows : The fire in the mountains is still burning, and extends about 10 miles from north to south, and is three miles wide. Saturday night, in one hour, between 9 and 10 o'clock, it ran more than three miles, and Sunday night it travelled north about the same distance. At the back of Dr. R. O. Tripp's, at Woodside, it ran with the roar of an angry ocean. If the wind changes, and it drives to Bear Gulf mill, it will not cease until we have rain. The principal loss is in cord wood. The side of the mountain looks as if covered with snow, from the white ashes left after the fire. The bridges are all burned on the Summit Springs toll road, and teaming has entirely ceased. Those who were fighting the fire on Sunday tell marvelous stories of the flight of game of all kinds, and the freedom with which the wildest animals would approach human being in their frenzy. Deer, hare, squirrels, and birds of all kinds, and even larger and more vicious objects, were seen flying in all directions.—*Northwestern Lumberman.*

A Prospective Lumber Point.

The *Northwestern Lumberman* says :—East Grand Forks, Minn., is a town that is performing the mushroom act on a high and dry location across the river from the flourishing city of Grand Forks proper. It is situated near the mouth of Red Lake river, and though making a mushroom growth, it is likely to become something more substantial than that French luxury. Besides having the prospect of being a great agricultural and trade centre, East Grand Forks will be the lumber manufacturing and distributing point for the billions of feet of Red Lake pine. It has the natural advantages of boom sites and milling privileges, and there seems to be no reason why Red Lake river will not become another Muskegon or Chippewa. Lumbermen looking out for a future stake can stick a pin at East Grand Forks if they want to, and not stick it amiss.

Kiln Dried Lumber.

The *Northwestern Lumberman* says :—There are still several concerns that object to kiln dried lumber. One of the largest wagon manufacturers in the country will use nothing but air dried stock, claiming that kiln drying destroys the life of the wood. This whim, if such it is, is costly, as any piece of timber required for use in the manufacture of a wagon can be thoroughly dried in a kiln in thirty days, while in the air, according to an accepted rule, the axles for a heavy wagon should be piled four years. The fact that the interest on a heavy stock of hardwood for that length of time would count heavily proves that the big wagon maker thinks his convictions well founded, and furthermore, that he considers his reputation worth something.

Wood-working Engineers.

The wood-working machinery for which such firms as Wilson & Sons, of Victoria Road, Leeds, and Joseph Green & Nephew, Globe Ironworks, Crown Point Road, Hunslet, are eminent, is finding greatly improved markets, both at home and abroad. In connection with building operations, in both France and Holland, some large shipments have been made. J. Green & Nephew have recently patented a hand-power tenoniting machine, which cuts the tongue and both shoulders at one operation with the greatest ease. This is believed to be the only successful hand-power machine which has yet been invented for that purpose. It is self-feeding, and will cut a tenon of 11 in. lock rail complete in a minute and a half.—*Ironmonger.*

THE firm of J. & S. McEachen, Douglas, writes us June 1st, saying "There is not another preparation we can recommend with so much confidence as Burdock Blood Bitters, as it invariably gives the best of satisfaction." Burdock Blood Bitters cures all diseases of Blood Liver and Kidneys.

BILIOUSNESS.—A furred tongue, bad taste in the mouth, nausea vomeling, nariable appetite, alternate diarrhœa and costiveness, faintness, weariness, yellow cast of eyes and countenance, indicates serious biliary trouble. Jaundice is a dangerous disease, it is an overflow of bad bile in the circulation, any of these symptoms should be remedied without delay, and Burdock Blood Bitters is the remedy upon which you may surely rely.

MACHINERY FOR SALE.

The Engine Boilers and all the Machinery in an Extensive Sash, Door and Furniture Factory for Sale, separately or in bulk. Catalogue on application to

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MANUFACTURERS OF

STEAM BOILERS.

NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTIN & Co.

Esplanade, Foot of Frederick Street, TORONTO.
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A Syndicate of Limit Holders
Represented by the Undersigned, offers

FOR SALE
On the Upper Ottawa,

600 Square Miles Virgin Forest of Pine, comprising 13 Licenses, nearly all Front Limits, on the main stream of the River Ottawa itself, on reasonable terms.

The Proprietors will sell either the whole, or, if preferred, a part interest to Capitalists who will furnish the requisite means to work this Valuable Property on an extensive scale.

The extension of the Canadian Pacific Railway westward towards Manitoba, the establishment of steamboats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subsiding streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

☞ Full particulars will be promptly sent on application to

E. J. CHARLTON,
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OF VALUABLE
TIMBER LIMITS,
Situated on the Rivers Ottawa, Gatineau and Jean de Terre.

The following limits, if not previously disposed of, will be offered for Sale at PUBLIC AUCTION,

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				Miles.
River Gatineau,—License Number		176	for 1881-2—	46¼
do	do	177	do	50
do	do	178	do	50
do	do	179	do	50
do	do	180	do	50
do	do	181	do	50
do and Ottawa	do	182	do	28¾
do and Jean de Terre		183	do	48
do	do	184	do	46
do	do	185	do	42
do	do	186	do	50
do	do	187	do	50
do	do	188	do	18
do	do	189	do	46 9-10
do	do	190	do	50
do	do	191	do	50
do	do	192	do	50
do	do	193	do	31¼
do	do	194	do	50
do	do	195	do	39 6-10
do	do	196	do	21
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THE PROTECTION OF FORESTS.

The Quebec *Chronicle* says:—The October number of the *North American Review* is a very readable issue. It shows by its table of contents that the editor, Mr. Thorndike Rice, has still faith in his generous policy of devoting the best part of his space to the discussion of timely topics. Among the large number of really clever articles, the reader will naturally turn with much interest, to Prof. Charles S. Sargeant's useful and practical paper on the protection of the forests,—a subject which, of late, has been paramountly brought before the attention of the public, in all parts of this Western Continent. Mr. Sargeant deals with his theme in a very direct and comprehensive manner, and adds very materially to the literature of Tree Planting and Forest Conservation. He takes a national view of his subject, and argues with great breadth and knowledge. In outline he sketches the distribution of the forests of the American continent, referring by the way, of course, to those of the Dominion of Canada. He points out where they exist, and what their capacity is, and what recuperative energies they possess. He indicates what these wonderful groves were, and what they have become, and alludes to their final extirpation as an almost necessary consequence of the people's indifference as to their preservation. Men used to say that the forests produced the rain, and some very ingenious reasoning has been based on that assumption by quasi-scientific people, but Prof. Sargent destroys the illusion completely and shows that, on the contrary, the rain produces the forests, thus reversing the phrase. The error,—a vulgar one, it must be admitted,—arose naturally enough from the fact that where there is rain there are trees, and by a peculiar process of reasoning some men reached the conclusion that the trees were the cause rather than the consequence of the rainfall. Prof. Sagent is quite philosophic over this part of his subject. He makes an interesting point here where he says:—"It is not improbable, in the light of recent scientific investigations, that even so recently as the time when some of the immediate ancestors of the trees which form the forests were growing, the whole interior region, now believed to be gradually drying up, enjoyed a more abundant rainfall than it now receives, and that these forests thus originally grew under more favourable conditions than at present. If this hypothesis is correct, it will be easy to understand why, under less favorable circumstances their reproduction will be difficult. The interior forests at the north may be expected, however, thanks to the present rainfall of that part of the country, to reproduce themselves slowly; but so slowly must this process go on, that, judging from the age of existing trees, many hundred years will have passed, if the forests are destroyed, before their successors can attain sufficient size to be of economic importance. Through all the southern part of the interior region the struggle for life has been so severe that the stunted groups of tree, which barely deserve the name of forests, have only succeeded in finding a foothold in the high canons about the heads of the scanty streams. The age of some of these small trees is immense; few young trees are growing up to replace those which perish in the course of nature; and once destroyed, the reproduction of these forests is so doubtful, or must at least be so slow, that the possibility of it, even, need not be considered in any practical discusssion of the question."

Prof. Sargent next proceeds to find a remedy for the wholesale destruction of the forests of the continent. He regards the forest fires, the browsing and ranging cattle, the reckless lumberman as the prime enemies of tree life and tree culture. He advises the enactment of more efficient laws against roaming cattle and against fires, by the several States of the Union, the matter being, in his opinion, clearly one in which the State, and not the Federal Legislature should act. He thinks that so far as the woods of the Atlantic region are concerned, the time for government action has passed away. The Government domain in Eastern America has either passed or is passing so speedily into private hands, that Government has practically no forest left in the Atlantic region to protect. Forest protection in this region, the writer thinks, should be sought from the State, and not from the general Government. In the Pacific region, however, where a different condition of things exists, different action is suggested. We may quote here Prof. Sargent's words. He says: "The general Government still controls immense areas of forest stretching over the mountain ranges of the Pacific region, and here, if anywhere, the experiment of Government protection of the forest can be tried. On the coast the climatic conditions will always ensure forest growth, and if the Government undertakes to preserve any portion of the coast forest it should do so only because it will seem a profitable business transaction to withdraw from immediate sale land which promises soon, with a larger demand for timber, to increase enormously in value; but it is in the interior region that the Government can perhaps enter with more propriety upon forest preservation, as the forests of the interior cannot long survive the wasteful and shortsighted methods of individual management. These interior forests either do not, under existing conditions, readily reproduce themselves, or do not when once removed, grow at all again."

The American forests yield every year about $450,000,000 worth of raw material, and furnishes employment directly and indirectly to upwards of a million pairs of hands, and the maximum productive capacity is not nearly yet reached. Prof. Sargent asks for a healthy public opinion, and seems to rely on it for the conservation of the trees, rather than on other means. He thus concludes his admirable paper:—

"Looking, then, over the whole field, it is seen that the forests of the country, with a single important exception, are still capable of large production. It is evident, however, that grave fears should be felt for their future extent and composition; that in all the Eastern and Central States regulation is required to protect the forest from fire and indiscriminate pasturage, and that in the interior Pacific region experiments in forest production could, perhaps, be wisely undertaken, unless this region is to be entirely stripped of its forests. All productive legislation, however, will fail to accomplish the results expected from it, unless backed by popular belief in the value of the forest. Such belief will come only with a better understanding of the importance of the subject; and the American people must learn several economic lessons before the future of their forests can be considered secure. They must learn that a forest, whatever its extent and resources, can be exhausted in a surprisingly short space of time through total disregard in its treatment of the simplest laws of nature; that browsing animals and fires render the reproduction of the forest impossible; that the forest is essential to the protection of rivers; that it does not influence rain-fall, and that it is useless to plant trees beyond the region where trees are produced naturally. When these lessons shall have been learned, forest protection in the United States will be possible and can be made effectual."

THE SPANISH RIVER.

The Alpena *Argus* says:—Last November the *Northwestern Lumberman* had considerable to say in regard to a tract of land situated on the Spanish River, Ont., and owned by Messrs. Fletcher Pack & Co., W. H. Potter and W. H. Johnson, of this city, and that sheet carried the idea that these gentlemen were sick of their bargain in purchasing the lands, and were anxious to sell to other parties. It now turns out that the "elephant" was a regular "Jumbo," and we understand that Messrs. Potter and Johnson have sold their two-thirds interest in these Spanish River pine lands to Wood, Pack & Co., for the snug little sum of $90,000; Fletcher, Pack & Co., not wishing to sell, still own their one-third. Those parties who consider the Spanish River pine lands such an "elephat" on the hands of the owners, may now have a short season for reflection.

QUEBEC FORESTRY ASSOCIATION.

The Montreal *Star* of Saturday, Sept. 30th says:—Another meeting to further the promotion of a Forestry Association for this Province was held this morning under the presidency of the Hon. Mr. Joly. There was a good attendance, among them present being Messrs. J. K. Ward, J. A. U. Baudry, Barnard, Adams, H. Lyman, Perrault, Drs. Alloway. Howard and Hart, and others. Mr. Stewart Thane acted as secretary. After a few introductory remaks from the chairman, a letter was read from the Hon. W. W. Lynch, Commissioner of Crown Lands, Quebec, in which he said: "My duties here will prevent me from being in Montreal tomorrow. I can only repeat the assurance I gave the other night that the movement for the organization of a Forestry Association has my hearty approval and I will gladly co-operate in any way I can to ensure its success.

I find, on referring to the Act of last session respecting the encouragement of tree planting, that it comes into operation only on proclamation of the Lieutenant-Governor in Council. I am to-day taking the necessary steps to have such proclamation issued. I wish the gentlemen who meet to-morrow would kindly give me their idea as to the best day for "Arbor Day" under that Act."

The report of the committee appointed at the general meeting was read, and the various clauses discussed seriatim. On clause 1, referring to the Association's title, Dr. Alloway objected to the name of the Province of Quebec only being given. Why was the name of Canada kept continually in the background? Were they ashamed of it? Many people did not known where Quebec was, but they did know Canada.

Dr. Alloway's objection was met by deciding to call it the Association of the Province of Quebec, Canada.

Several clauses were discussed and agreed to. One, allowing the officers and delegates of the American Forestry Association to be ipso facto members of the Forestry Association of the Province of Quebec, Canada, was passed on the motion of Mr. Barnard, seceonded by Mr. Baylis.

Clauses 6, 7 and 8 were amended, providing for the management of the society as follows: "That there should be one president, two vice-presidents, two secretaries, treasurer, a council of sixteen, and a general committee."

The meeting then proceeded to the election of officers for the ensuing year, with the following results:—

Honorary President, Mr. James Little.

President, Hon. Mr. Joly.

Vice-Presidents, Messrs. J. K. Ward and Massue.

Recording Secretary, Mr. Jos. Perrault.

Corresponding-Secretary, Mr. E. Barnard.

Treasurer, Mr. G. L. Marler.

COUNCIL:—For Montreal—Messrs. W. Little, Henry Lyman, Henry Evans, Dr. Henry Howard, Hon. Louis Beaubien, Messrs. J. A. U. Baudry and Wm. Robb.

For Quebec—Messrs. Louis Bilodieux, Col. Rhodes, S. Lesage, A. Blondin,—Becancour, A. Dupuis (St. Rochs.)

Abbotsford—Mr. Thos. Gibb.

Longueuil—Mr. J. M. Browning.

Chateauguay—Mr. R. Jack.

Three River—J. B. Normand.

A long discussion then took place respecting the suggestion about "Arbor Day" in Mr. Lynch's letter, and some differences of opinion were expressed as to when was the most appropriate time. Dr. Howard said he thought when the day was appointed it should be kept a general school holiday, so that the importance of tree culture would be impressed upon the minds of the scholars. Eventually it was decided to inform Mr. Lynch that in its present position the Association did not feel itself quite prepared to fix upon a special day.

After other business the meeting separated.

FORESTS AND STEEL.

The following paper on "Canada's Forests and her future as a steel producer," was read at the recent Forestry Congress at Montreal by Mr. E. Haycock, president of the Ottawa Iron and Steel Manufacturing Co.:—

MR. CHAIRMAN,—In this paper, on the future of Canada with reference to her wooded lands, I have found it necessary, for the purpose of elucidation, to bring before your Congress two principal factors in that future, factors intimately connected one with the other, namely, wood for charcoal making and iron ores, for, in the manufacture of high grade iron the charcoal fuel will be used, in fact, so far as our present knowledge of such manufacture, cannot be dispensed with.

The present age is one, well termed the "Steel Age," in which steel is used in the construction of a large portion of articles formerly made from uncarbonised iron. This extensive employment of steel is probably only in its infancy, and will in all likelihood be vastly extended.

This question in the present meeting of your Congress is, therefore, to the point.

In the manufacture of this steel for the future, wood charcoal is a necessity, where is it to be found? And what steps can be taken to protect the supply from destruction?

Here it is that the heading of this paper "The future of Canada as a steel producer" comes fairly before the Congress, and I venture to assert that Canada will be the great future field from which the largest portion of the world will have to draw their supply of steel, and steel making irons.

The Dominion has been called a "wooden country," we Canadians are proud to accept the term, and are prepared to show that in the practical sense, our Dominion is a well wooded country, our forests extending thoughout in vast extent, and when we see that this forest is intimately connected through the Laurentian rocks with the richest and purest class of iron ores, we may well feel proud of these facts, which place our Dominion before your Congress as an extensive future supplier of charcoal, and charcoal made irons.

For instance among others, take the Valley of the grand Ottawa River, and those of its tributaries, the forest may be counted in square miles by hundreds of thousands. This forest partially consists of pine timber, much of it in the hands of lumbering firms, who in their large undertakings add to the wealth of the country, and are much to be commended for so doing. Although this wealth is large, that in the future which may be acquired through Canada's forests in connection with her iron ores, will fully equal, if not exceed it; as in connection with these timber lands, and in vast independent tracts are forests of the finest maple, beech, birch and other hard woods of the greatest value to the Dominion for the production of charcoal, and if, as is the case, in many portions, iron ore is found on the same lands, it is easily understood how valuable they become.

The cut from these lands will range from 20 to 80 cords of wood to the acre, say an average of 50 cords, making 40 bushels of coal to the cord, thus 4 cords of wood will make 1 ton of iron, or 12 tons to the acre, shewing its value, and importance to the country.

If proper care and supervison is given to see that the young wood is allowed to grow, the supply of wood for fuel in the Dominion is practically inexhaustible and fully establishes the fact of a great future.

Wood charcoal, to become valuable, has to be within a reasonable distance from the ore it is required to smelt. I wish to draw a comparison between Canada with her forests and ores, and other countries which carry ore, drawing first attention to the fact that all other countries available are running short of their supply of charcoal fuel.

Spain, Algeria, and the Mediterranean islands with their rich ore *have no wood*. England ditto, Norway nearly so. Sweden, the present great steel producing region, is rapidly approaching the same position. Germany and France ditto. The United States with their vast consumption, and rapid increase of charcoal blast furnaces, will hardly be able to keep up their supply many years. Russia's freight and internal dissensions kill the possibility of a supply being drawn from her. Where then can the coming "Steel Age" derive their supply from? Unless from Canada with her extensive wood lands and rich ore beds.

I have not in this paper touched upon the large amount of wood for charcoal making that is available from the waste of our extensive saw mills, nor do I take up your time in showing the waste made in clearing up land for settlement, these are points that can be made available and improved upon. After reaping the fruits of this meeting of your Congress, we will have to approach our Dominion Legislature urging

measures that will prevent waste, and lead to encouragement of that industry which, with our good natural advantages, will make Canada the first steel producer in the world.

Mr. Chairman I close by expressing gratification in viewing this friendly visit of your important Congress, and a hope that your meeting among us will produce results in the protection of our wealth-giving forests, and increased cordiality among those who have the interests of our respective countries at heart.

GUM PLATES.

S. H. Gray's wooden plate factory at Newbern, N. C., has been in operation about three years, and employs 100 hands. The wood used is sweet gum, and the process of manufacture is thus described by the Newbern journal: The logs are cut about four feet long and are thrown into a vat and go through the cooking process. The bark is next taken off and the logs go to the veneer machine, which is regulated by gear to cut to any width desired. The machine cuts the logs as it revolves, until it becomes perfectly round, and then it is peeled of in sheets, carried to the cutter, which cuts them the right length. They then go through the drying process. For this purpose there is about 2,000 feet of heating surface, and the square sheet of wood is placed between the steam pipes to dry; after drying they are taken to the second floor to the presses, of whice there are about 100 kept heated to a certain degree by steam pipes. A half dozen of the sheets of wood are put in each press and a weight swung to the lever, which gradually presses them to the proper shape; here they remain until perfectly dry; then, by pulling a lever they are cut perfectly round and in nice shape. When taken from the press they are sent to the packing room, where a number of boys are engaged in counting and assorting, 150 being put in each package. They are then ready for shipment. A 75-horse power engine is used at present, and the average turned out per day is about 50,000. A 120-horse power engine is to be added soon, and then the average turned out per day will probably reach 100,000. One of the latest improvements to the factory is the pressing of the plates by hydraulic pressure, worked by an accumulator. With a sufficient number of these machines, two boys will be able to do the work of six hands.—*Northwestern Lumberman.*

NORWAY.

The Christiania correspondent of the *Timber Trades Journal* of Sept. 16 says:—Spruce having gone up in value, it seemed quite natural to expect that Norway whitewood flooring boards would again find favour in the Liverpool district at fair prices. I have, therefore, been surprised to learn that no more than £3 15s. c. i. f. Liverpool for 1sts could be obtained this week, which with present rates of freight and insurance increasing, would not cover first cost of battens (at prices for which they can be had now), together with planing and shipping expenses. Besides, the above rate does not compare reasonably with the price of spruce battens recently quoted in your columns, and if some shippers have nevertheless accepted orders for Liverpool on the basis of £8 15. c.i.f., which I believe to be the case, it may, perhaps, be accounted for by this, that what they have been shipping to Australia has been principally redwood, leaving them with a good deal of whitewood in stock.

A Well "Cured" Editor.

At. No. 80 King Street, East Toronto, Ont. are the editorial rooms of the *Sunday School Manual*, edited by Mr. Withrow, of 240 Jarvis street, in the same city. Conversing recently with several gentlemen,—one of them the representative of the largest advertisers in the world,—Mr. Withrow remarked; "As to advertising, I consider St. Jacobs Oil the best advertised article by far. It is a splendid remedy too. Besides the many cases of rheumatism it has cured right amongst us, it has rendered me most efficient service in curing a severe soreness of the chest and an obstinate headache. It does its work satisfactorily."

"And Fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zopesa, Clergymen write us earnestly as to its wonderful effects.

Chips.

A local paper states that a man 74 years of age and his wife 31 years old, living at Bear lake, Mich., last winter cut 27,000 feet of maple logs. The wife weighs 310 pounds and wields the axe and handspike better than a man.

The Bay City, Mich., saw-mills are forbidden to blow their whistles by city ordinance, while those in West Bay City are privileged to blow their smoke stacks down if they want to. It is a side blow at Bay City that makes the latter mad.

Engravers complain about the scarcity of good boxwood, which they say is difficult to obtain. The box forests of Turkey, upon which consumers depend for the bulk of the supplies, are being wastefully cut, and few new trees are planted.

The Hamilton & Merryman Company has cleared out about 20 miles of Pike river, in the Menominee district, Mich., and built four dams during the past summer. The company has had crews at work on the blown down pine all summer, and is now running the logs out.

The Mackinac Lumber Company at St. Ignace, Mich., will saw some 30,000 feet of birch and maple logs into timber for logging sleds, and other uses in the woods. The company has started 2 camps on the pine, 35 miles from the mill, and camp three is about ready to be started.

The Quebec *Chronicle* says the timber market has been quiet all week, but some large transactions are reported at price which have not transpired. We hear that manufacturers of square timber are stiff, and demanding rather higher rates, owing to the great difficulty in obtaining men for the coming winter, and the great advance in wages.

Recently Fanning & Morrison, of Jacksonville, Ill., had cut on the Illinois river bottom a walnut tree measuring seven feet in diameter at the butt. The trunk measured 48 feet in length, and was without a limb, knot, shake or rot. It made four logs 12 feet long, the diameter at the small ends being 51, 45, 41 and 38 inches respectively, measuring nearly 5,000 feet.

The Alpena *Pioneer* says:—We learn that the Canada pine lands purchased by our citizens 2 or 3 years ago has come into the market and is now selling for four times what the purchasers gave for it. That is the right kind of an "elephant" for one to have on his hands just at this time. We learn that one party has just hauled in $30,000 for what has cost him in all less than $8,000. Who wrote those letters to Bay City?

The London *Timber Trades Journal* says:—By the by, what quaint-looking little crafts they which bring over mahogany logs often are; the sailors dressed in their blue cotton suits, with their sunburnt, brown complexions, the vessel schooner rigged and rakish-looking, the long bamboo canes or poles lashed to the bulwarks, the bunches of bananas hung out in the snn to ripen, the valuable little cargoes, each and all looking thoroughly tropical, and are as a rule, the most interesting object to be found in the docks.

The Ottawa *Free Press* says:—The great revolution brought about in the business of conveying timber to Quebec by the construction of railways is shown by the fact that Mr. Richard Nagle has completed arrangements with the Canadian Pacific railway for the transport of all his next season's make of timber direct from his limits on Lake Nipissing to the Port of Quebec. The time has evidently arrived when the system of rafting with its dangers, risks and delays will pass away forever from the Ottawa River.

The Chicago *Northwestern Lumberman* says that the Pentriss Lumber Company, of Alpena, Mich., has purchased of Ross & Co., a Candadian firm, the stumpage on certain timber limits along the line of the Detroit, Mackinac & Marquette road, from which part of the timber has been removed. Ross & Co. make a speciality of getting out square timber for the export trade, selecting only trees of certain large sizes and lengths; thus leaving a large amount standing that is valuable for lumber. This the purchasing company will utilize, and logging crews will be started at once.

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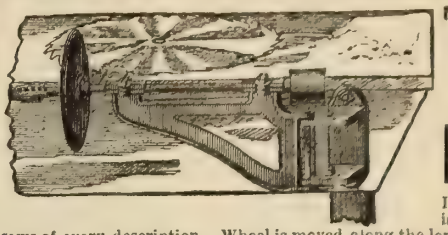

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to
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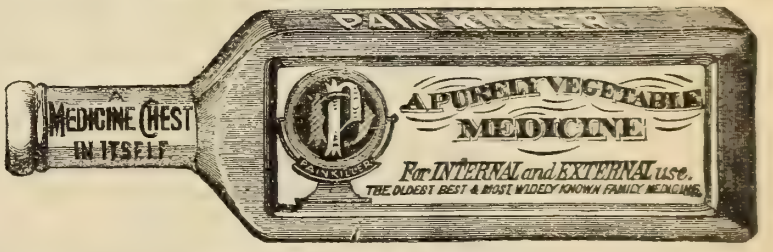
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Cobourg, Ont., March 3, 1880.
I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a *first-class family medicine*, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.
Yours, &c., J. E. KENNEDY
Beware of Counterfeits and Imitations.
Price 20c., 25c., and 50c. per bottle.

Market Reports.

TORONTO.

From our own Correspondent.

OCT. 9.—Lumber is now moving briskly, although not by any means rushing. I find on enquiry at the different yards and factories, that there is a full supply on hand for all present demands, and the deficiency existing at all is in bill timber, the supply of which is not equal to the wants of customers, so much so indeed, is this want felt, that considerable quantities of that much abused wood, hemlock, is now meeting with ready sale, and I confidently venture the asssertion that the day is not far distant when it will be generally used for all rough purposes, and there is no question but that for strength and durability, and where not exposed to damp, it is far preferable to white pine, and the prejudice entertained against this kind of wood has arisen mainly on account of the dislike entertained by the workmen to handle it, and because lathers in their haste to put on a certain number of yards per day, break more nails in doing so,

All the vessels arriving at our docks for lumber find no difficulty in obtaining cargoes, of course many of the vessels trading from this port in the early part of the season have gone off and found more profitable freights in the shape of grain, so that it enabled those remaining in the trade to demand better figures, which they are now getting, viz., $1.25 per M., to Oswego, and the chances are that still higher freights will be demanded before long, so that unless American buyers can succeed in breaking prices, they will have to pay more for their purchases delivered in Oswego, than it would have cost them one month ago, and I still maintain that in view of the increased cost of production for our next season's supply they will not succeed in pulling prices down this fall. I think I am safe in stating that 100,000,000 feet would cover all the lumber north of this city intended for shipment to the Eastern markets, and I think it will be conceded that after deducting any contracts to deliver, now made, and doubtless there are some, it will not leave any serious quantity to winter over, and have ready for the spring trade, the facts are that the estimated cut presumed upon in the early spring, will fall short at most of the mills, unforeseen accidents such as mills being burnt, boilers exploding, etc., all combine to reduce the expected cut for the season. Quotations from the yards are unchanged.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	17 00
" " " 28 ft	18 00
" " " 30 ft	20 00
" " " 32 ft	21 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	35 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	27 00@30 00
Three uppers, Am. inspection	35 00@40 00

B. M.

1-inch flooring, dressed	32 00
1¼ " " rough	16 00
1¼ " " dressed	26 00
1½ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	14 00
XXX sawn shingles, ℔ M	3 00
XX sawn shingles	2 00
Sawn Lath	2 25

MONTREAL.

From our own Correspondent.

OCT. 9.—Business still keeps good, the demand being very firm. Prices are firm and for the most part unchanged. 2nd shingles are dearer and we advance the quotation. The quantity of lumber coming to the city is a little larger than it was a few weeks ago, arising from the fact that merchants are begining to fill up their yards for the winter. Lumber merchants, coal merchants, cordwood men and forwarders, have, during the past year or two, been very much cramped for accommodation at the canal, so much so, that a vessels has frequently been obliged to discharge her cargo in four or five different places. At last session of Parliament a sum was placed in the estimates for the purpose of building two new basins in the canal, the plans for which are now about complete, and it is the intention of the Minister to advertise for tenders and push on the work with as little delay as possible.

The heavy American contracts for lumber entered into in the spring are now about completed. There have been a number of enquiries lately from the United States for ash lumber, but as the supply here is not heavier than will meet the local demand, holders are not anxious to part with that class of lumber. We quote yard prices as follows :—

Pine, 1st quality, ℔ M	$35 00@40 00
Pine, 2nd " ℔ M	22 00@24 00
Pine, shipping culls, ℔ M	14 00@16 00
Pine, 4th quality deals, ℔ M	11 00@12 00
Pine, mill culls, ℔ M	10 00@12 00
Spruce, ℔ M	10 00@13 00
Hemlock, ℔ M	9 00@10 00
Ash, run of log culls out, ℔ M	20 00@25 00
Bass, " " ℔ M	17 00@20 00
Oak, ℔ M	40 00@50 00
Birch, ℔ M	20 00@25 00
Hard Maple, ℔ M	25 00@30 00
Lath, ℔ M	1 30@ 1 40
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 50@ 0 00

SHIPMENTS.

Shipping has been going on very briskly since the date of our last report, seven vessels having cleared for the River Plate, one for London, two for Liverpool and one for Grimsby. The quantity shipped was as follows : To London, 632,000 feet ; to Liverpool, 7,989 pcs deals and ends, 14,734 boards ; to Grimsby 6,131 pcs deals and ends, and 199,980 feet of lumber ; to St. John, N. B., 53 mille drum staves, and 2,460 pcs puncheon staves ; to Monte Video, 3,026,645 feet ; to Buenos Ayres, 751,880 feet. The total shipments of lumber to South America since the opening of navigation to date was 17,928,-060 feet, against 10,716,180 feet for the same period of 1881 being an increase of 7,211,880 feet.

CORDWOOD.

Business is fairly active and wood is moving pretty fast. Arrivals are not by any means heavy, but it is expected that large quantities will be brought in by rail during the winter. Prices still tend upwards. We quote ex cars and on the wharf.

Long Maple	$7 50
Short "	7 00
Long Birch	6 50
Short "	6 00
Long Beech	6 50
Short "	6 00
Tamarack	5 00

ST. JOHN, N. B.

From our own Correspondent.

OCT. 6.—The deal market here is still higher than it was a fortnight ago, as since then most of the stock held here has been purchased by one firm at prices ranging from $10 to $12 per M., for ordinary mill specification, and sellers are asking similar prices for all stock yet remaining unsold.

Freights are considerably weaker, owing, no doubt, to the fact of the stock here being in the hands of so few persons who are now in a position to control freights to a considerable extent.

Freights to-day may be quoted as follows :—

Liverpool .....71s. c. d.
Bristol Channel ....70s. to 70s. 3d. c. d.
Ireland..... .....71s. 3d. to 75s. c. d.

SHIPPING.

The following is a list of the vessels in port, with their tonnage, destinations and rates of freight :—

Honolulu (new), 1,400, Livepool, 70s. c. d.
Importer, 1,447 do, 71s. 3d. c. d.
Cavalier, 1,089, do, 70s. c. d.
Crown Jewel, 716, do, 71s. 3d. c. d.
Vendome, (new) 1,400, do. 73s. c. d.
Lalia, 390, Bristol Channel, 71s. 3d. c. d.
Scioto, 855, United Kingdom.
Wolverton, 620, Bristol Channel, 71s. 3d. c. d.
Helen O. Phinney, 421, do, 72s. 6d. c. d.
Village Belle, 625, Londonderry, a/c.
Belle Walters, 400, Carnarvon.
Anna P. Odell, 380, Avonmouth. 71s. 3d. c. d.
Blanco, 344.
Christiana, 508.

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881.			1882.		
Deals. M. S. ft.	*Pine. Tons.*	*Birch. Tons.*	*Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
156,185	805	3,802	141,845	1,082	3,890

VESSELS LOADING THIS DATE.

1881.		1882.	
Ships.	*Tons.*	*Ships.*	*Tons.*
25	23,642	14	10,596

QUEBEC.

OCT. 7.—The market has been fairly brisk this week, and we understand that the sale of several rafts of Ottawa timber has taken place, reducing the number of white pine rafts to about 24 or 25. Three rafts, averaging about 57 feet, with waney board, 18½ inch, were placed at 29c. and red pine at 16 cents. A choice raft of 51 feet, with waney board, 19½ inch, at 30 c. Also, some drams of St. Lawrence waney, at 34c. to 35c.

Oak and other hardwoods are in fair demand.

We hear, that, owing to the scarcity of men and the high wages asked, a considerable falling off in the manufacture of timber is likely to take place.

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ℔ M	$57 00@64 00
Pine, fourths	57 00@59 00
Pine, selects	52 00@54 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 42@00 45
Pine, 10-in. plank, culls, each	00 22@00 25
Pine boards, 10-in	00 28@00 32
Pine, 10-in. boards, culls	00 20@00 21
Pine, 10-in. boards, 16 ft., ℔ M	30 00@35 00
Pine, 12-in. boards, 16 ft	30 00@34 00
Pine, 12-in. boards, 13 ft	27 00@29 00
Pine, 1¼ in. siding, select	45 00@47 00
Pine, 1¼-in. siding, common	18 00@20 00
Pine, 1-in. siding, select	45 00@47 00
Pine, inch siding, common	18 00@20 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1¼-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ℔ M	40 00@43 00
Ash, second quality, ℔ M	25 00@30 00
Cherry, good, ℔ M	00 00@85 00
Cherry, common, ℔ M	25 00@35 00
Oak, good, ℔ M	40 00@43 00
Oak, second quality, ℔ M	20 00@25 00
Basswood, ℔ M	25 00@30 00
Hickory, ℔ M	40 00@40 00
Maple, Canada, ℔ M	28 00@30 00
Maple, American, per M	26 00@28 00
Chestnut, ℔ M	35 00@40 00
Shingles, shaved, pine, ℔ M	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 60
" cedar, mixed	0 00@ 3 60
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ℔ M	0 00@ 1 75
Lath, spruce, "	0 00@ 2 00
Lath, pine, "	0 00@ 2 25

BOSTON.

The *Journal of Commerce* of Oct. 9, says :—The demand is very good, and rather improves as the season advances. There is a firm tone to the general market, and if there is any change, it is in the direction of higher prices. Stocks all around seem to be in a very encouraging shape, and the prospect is for a good steady fall trade.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

CHICAGO.

The *Northwestern Lumberman* of Oct., 7, says : The receipts of the past week have averaged with those of the corresponding week of last year, although 10,000,000 feet of lumber and 13,000,000 feet of shingles less than last week, while the total receipts now exceed those to the same date of 1881 by 149,059,000 feet of lumber and 15,708,000 shingles. The cargo dock has been well supplied during the week, and a marked indifference has been manifest on the part of purchasers, making what is charactarized by all as a dead market. With fair offerings of 15 to 20 loads loads per day during the closing days of last week, Monday brought a fleet of 33 vesssels, of which one-half worked off during the day. Tuesday's offerings comprised 22 cargoes ; Wednesday's 19, while on Thursday but five were present. Coarse lumber rated dull and lower, while good stock was quickly taken. Short dimension stock receded slowly, until at the time of writing $10.25 and $10.50 are the ruling prices, the latter price for good assortments and quality, with a good proportion of long lengths above 18 feet. No dry stock has been offered for some weeks and we suspend our quotations upon such.

Long length dimension has ranged from $11.50 to $13, at which they are fairly quotable, as to to character of stock and sizes, combined with lengths. No. 2 boards and strips are not in active demand at a range of $12 to $13, while cargoes of good assorting grades rule firm and quiet at a range of $15 to $23, while select cargoes of No. 1 stock, with common out, or largely so, brings from $23 to $28. This grade of stock is wanted, but the large accumulations at the yards of coarser stock disinclines purchasers to bother with it, unless at a decided advantage as regards price.

Shingles have proved active and prices are well maintained. Standards selling at $2.60 and $2.65, "A" of the less favorite packing bring no more than the best standards. A fair market range of "A" is from $2.65 to $2.95, the latter price only for approved and favorite brands. Clear shingles have not been offered during the week, and those brands which are approved under this designation are contracted ahead to an extent which forbids the necessity of coming on the market.

The present condition of the market is what the *Lumberman* predicted in August, although its coming was delayed a couple of weeks later than anticipated. From this time to the close of the season it is doubtful if any decided advance will be realized on coarse stock, the yards being full up to nearly a winter stock ; still, should the country demand improve, and the stock now in yard be worked off satisfactorily, there is a bare chance for later receipts to bring an improved figure.

CARGO QUOTATIONS.

Short dimension, green	$10 25@10 50
Long dimension	11 50@13 00
Boards and strips, No. 2 stock	12 00@13 00
No. 1 stock	15 00@22 00
No. 1 log run, culls out	17 00@23 00
Standard shingles	2 00@ 2 65
"A"	2 65@ 2 95
Clear	0 00@ 3 25
Lath	0 00@ 2 25

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending October, 4, as reported by the Lumberman's Exchange :

RECEIPTS.

	Lumber.	*Shingles.*
1882	65,300,000	27,555,000
1881	66,113,000	30,123,000

FROM JANUARY 1 TO OCTOBER 4 INCLUSIVE.

RECEIPTS.

	Lumber.	*Shingles.*
1882	1,594,197,000	659,564,000
1881	1,445,138,000	643,846,000
Inc	149,059,000	15,708,000

LAKE RECEIPTS TO OCT. 4.

1882	1,402,204,000	603,861,000

STOCK ON HAND SEPT. 1.

	1882.	1881.	1880.
Lumber	580,890,533	481,154,279	467,966,545
Shingles	226,806,750	219,828,000	173,753,000
Lath	42,996,432	37,556,820	48,755,681
Pickets	2,678,476	2,030,210	2,193,317
Cedar posts	218,309	256,235	67,006

OSWEGO, N.Y.

Three uppers	$46 00@48 00
Pickings	36 00@38 00
Fine, common	20 00@25 00
Common	14 00@17 00
Culls	12 00@15 00
Mill run lots	18 00@25 00
Sidings, selected, 1 inch	33 00@38 00
1½ inch	35 00@40 00
Mill run, 1x10, 13 to 16 feet	19 00@25 00
selected	25 00@35 00
Strips, 1 and 1½ inch mill run	14 00@20 00
" " culls	11 00@14 00
1x6 selected for clapboards	25 00@40 00
Shingles, XXX, 18 inch, pine	3 75@ 3 90
XXX, 18 inch, cedar	3 00@ 3 25
Lath	2 25@ 2 25

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

LONDON.

The *Timber Trades Journal* of Sept. 23rd says :—The fall fleet of Quebec timber ships appears to have had long passages out to the St. Lawrence. Our irrepressible old friend, the Red Jacket, was thirty-eight days between London and Quebec, and few ships from the west coast ports did bettter. The vessel mentioned sailed from here July 26th and arrived out on the 2nd of Sept., and was reported as undergoing repairs and "boot-topping," in Russell's Dock, Levis, on the 8th, The Hovding, 1,192

tons, entered at the Custom House for loading, on the 5th. She is chartered to Messrs. Bryant, Powis & Bryant, and will doubtless clear out for sea before the Red Jacket.

There will be a good many heavy ships from the river and Gulf of St. Lawrence, which may be expected to reach our shores in Oct., at freights from 62s. 6d. to 65s. standard for deals, and 26s. to 27s. a load for timber. 67s. 6d. Montreal to London is the highest quotation at present, so that freights continue easy enough for the season from the North American ports. In 1874 they went up to 75s. and 80s., but soon came down again, and have been near about their present level for several seasons.

The arrival of seventy-four wood-laden vessels since our last report permits of no anticipation of short supplies to London, though very little is as yet coming forward from the Canadian side. Only two vessels in the list are from the St. Lawrence, and these are both from Montreal (Quebec as well, of course), and with one pitch pine cargo from the Atlantic fleet. Most of the other cargoes are from Northern Europe, while the quantity of firewood is rather considerable for a week's supply, exceeding as it does 3,500 fathoms. Of the week's fleet 26 only are steamers forming in number little more than a third of the whole, though in respect to their cargoes we reckon they bring nearly half the week's import.

LIVERPOOL.

The *Timber Trades Journal* of Sept, 23, says: The advance in the prices of nearly all kinds of wood goods appears to have checked in some degree the steady rate at which the consumption has been going on for some time past, and there are now heard expressions of the difficulty there is in obtaining in the country any advance corresponding to that now reigning here.

Consumers generally appear to be unable, or perhaps unwilling, to grasp the chief feature in the upward movement that has recently taken place—that is, the high rates of freight which have now to be paid to this country—but there does not seem to be any probability of a decrease in this direction, as tonnage available for fall shipments from the deal ports in Canada and the provinces appears to be as difficult to procure as ever it did. The few vessels that have been chartered recently have been paid advanced rates for the purpose of bringing forward contracts entered into early in the season, which must leave the shipper to face a heavy less upon these transactions.

The present sluggishness of business may be merely a pause until such time as buyers have recovered from the affects of the recent advance, and can look to the future with more confidence than they do now, bearing in mind that there has been no advance in the prices at which the goods are now selling which will compensate for the increased cost of freight and insurance.

There has been no auction sales of whitewoods since your last issue, but the sale advertised by Messrs. A. F. & D. Mackay to take place on Friday, the 22nd inst., is looked forward to with interest.

LEITH.

The *Timber Trades Journal* of Sept. 23rd, says:—The arrivals at this port have been pretty numerous during the past week, thirteen cargoes of deals and battens, containing 93,682 pieces, having been reported. Of these, three cargoes are from Hernosand, three from Stocka, two from Cronstadt, and the rest from various well-known ports. No public sales have been held here since my last; Messrs. Mitchell, Somerville & Co. have, however, one announced for Tuesday next.

Trade here is pretty steady, and prices for American goods firm; the demand for this class of goods, however, is not great.

GLASGOW.

The *Timber Trades Journal* of Sept. 23rd, says:—There have not been any public auctions of timber at the Clyde ports during last week, a lack of interest or healthy competition being apparent at several of the sales held recently; but a sale of wood goods of varied character is advertised for the 21st instant, result of which will be noted for next issue. The strike of shipjoiners and the continued dulness in the house building largely account for the apparent quietness at present. As to the strike, it is expected, and is very desirable, that it should not continue long; meantime there is little change to note in the position of matters.

American black walnut (large and straight-grown wood) is in demand at present. This year's import of States walnut, amounting to 867 logs, shows a falling off of about 300 logs compared with amount last year at corresponding date.

Wood Book Covers.

Mr. T. Fisher Unwin has sent us "Principles to Start With," a little volume of selections from Dr. Watts and others, which is specially remarkable for its binding, having a cloth back and wooden veneer sides. The veneers are cut extra thin and then treated in a particular manner, which renders them tough and pliable, so that they can be turned in over the boards as neatly and easily as cloth or leather. The effect is very good.—*Timber Trades Journal.*

THE Winnipeg *Commercial* of Oct. 3, says:—The demand in this branch is practically unlimited at present, and country orders have to be much delayed owing to the insufficient supply at hand. The immense demand in the city for building purposes keeps our manufacturers and importers busy, and this seems likely to continue for some time to come. The mills have a plentiful supply of logs on hand, and are taking full advantage of the same.

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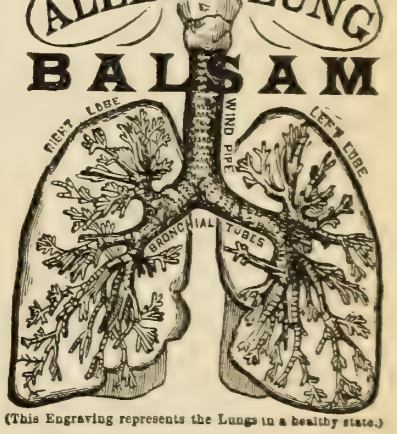

(This Engraving represents the Lungs in a healthy state.)

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BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of trade, for the month of August, and for the first eight months of the year :—

MONTH ENDED 31ST AUG., 1882.

	Quantity. Loads.	Value. £.
Timber (Hewn).		
Russia	44,465	90,261
Sweden and Norway	67,644	106,576
Germany	28,110	68,271
United States	11,846	44,246
British India	911	8,894
British North America	48,682	238,627
Other Countries	23,972	32,425
Total	225,630	589,309
Timber (Sawn or Split, Planed or Dressed).		
Russia	219,573	623,653
Sweden and Norway	212,689	520,679
British North America	168,729	464,974
Other Countries	32,044	98,177
Total	633,035	1,707,483
Staves, (all sizes)	15,668	78,784
Mahogany (tons)	1,714	15,783
Total of Hewn and Sawn	858,665	2,296,783

EIGHT MONTHS ENDED 31ST AUG., 1882.

Timber (Hewn).		
Russia	178,229	372,505
Sweden and Norway	395,095	607,062
Germany	176,339	523,369
United States	129,100	437,247
British India	30,572	384,250
British North America	125,695	589,419
Other Countries	236,476	301,665
Total	1,271,506	2,251,517
Timber (Sawn or Split, Planed or Dressed).		
Russia	671,581	1,681,540
Sweden and Norway	1,022,858	2,627,534
British North America	552,750	1,437,174
Other Countries	265,420	847,922
Total	2,512,609	6,594,240
Staves (all sizes)	76,478	390,964
Mahogany (tons)	18,218	171,213
Total of Hewn and Sawn	3,784,115	9,809,757

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c. measured and culled to Sept. 29 :—

	1880.	1881.	1882.
Waney White Pine	1,986,008	2,286,531	2,201,705
White Pine	3,784,584	5,049,732	7,161,267
Red Pine	948,679	1,856,585	1,329,262
Oak	1,285,443	2,530,165	1,052,977
Elm	894,694	998,678	635,205
Ash	230,506	392,877	243,301
Basswood	256	3,576	1,273
Butternut	627	2,991	2,585
Tamarac	22,458	24,382	12,445
Birch & Maple	555,874	151,742	208,282
Masts	4 pcs	25 pcs	33 pcs
Spars	23 pcs	— pcs	51 pcs
Std. Staves	16.4.3.15	368.7.2.29	320.2.3.29
W. I. Staves	260.0.0.22	348.1.3.3	1066.0.0.28
Brl. Staves	.....	.....	71.9.1.9

JAMES PATTON,
Supervisor of Cullers.

Quebec, Sept. 29.

TWO HUNDRED MILLS OF PINE.

The Minnesota pine owners are likely to be deprived of the lumber monopoly along the Northern Pacific road. A boom is coming from the west as soon as the road is completed through. On the western slope of the Rocky mountains there is a vast forest of white and yellow pine, some Norway and a sprinkling of tamarack and cedar. H. W. Scott, the government commissioner, has traversed the region, and glows and gushes about the timber there like a true government official, but after making all due allowance for his federal proclivities, we must conclude that there is quite a neck o' woods over on the western slope. The commissioner says :—

It is a wonderful region, all things considered. Going west after you cross the main range of the Rocky mountains, and passing 50 miles beyond, the great timber belt is reached. For a distance of two hundred miles the road runs through a grand forest of pine, cedar and tamack. The pine is of three valuable varities, and includes besides the white or cork pine, splendid Norway, and the genuine yellow pitch pine of the South. This pine timber in not the largest in circumference that I have ever seen—for trees of more than three feet in diameter are not frequent—but it will average in height of trunk and evenness of diameter to a great height better than any timber known to the forests of northern Wisconsin or Minnesota. Taking the length and evident soundness of the pine into consideration, I presume it will average, for sawing purposes, better in yield and quality than any body of that wood ever made accessible in this country. The great height and symmetry of the timber indicate that it has been of even and vigorous growth, and that it will, therefore, be of a very superior quality. Of course, for finishing purposes the yellow pitch pine has few equals among woods, and this will be a new resource for supply in that direction. The cedar, too, is of a superior growth and quality.

This valuable timber is on government land, excepting that included in the railroad grant. During the present season fires have raged in the woods, no doubt doing much damage. As soon as the railroad is completed mills will be put up along the line in this forest region and an immense output of lumber will be the result ; and it will tend powerfully to put off the evil day of a timber famine that they are so much worried about over in Quebec and Saginaw.—*Northwestern Lumberman.*

PINE LAND FRAUDS.

The *Lumberman's Gazette* says :—The public interest in the pine land frauds at Duluth, which has languished for a month or two, will be revived by the latest step of the commissioner of the general land office. It appears that the frauds have been going right along in spite of the crusade by the department, and that the commissioner finally despaired of stopping them by ordinary means. Even the change of officers at the Duluth land office did not stop fraudulent pre-emptions. Dishonest officers could facilitate frauds, but honest officers could not, it seems, prevent them. Finally the commissioner struck at the root of the difficulty by ordering the surveyor general to file no more township plots in the Duluth and St. Cloud districts. The land-grabbers make their selections from these plots and send their tools to file on the land selected. The prohibition of filing the plots will break up this practice, while it will not work serious injury to actual settlers who select their land after actual inspection of the ground itself. There will probably be a howl against the order, however, in the name of the poor settlers whose rights to public land are infringed.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Sept. 31st, 1881 and 1882, and also the Consumption for the month of Aug., 1881 and 1882 :—

	Stock, Aug. 31st. 1881.	Stock, Aug. 31st. 1882.	Consumption for the month of Aug. 1881.	Consumption for the month of Aug. 1882.
Quebec Square Pine	558,000 ft.	181,000 ft.	150,000 ft.	238,000 ft.
" Waney Board	337,000 "	379,000 "		
St. John Pine	23,000 "	9,000 "	— "	1,000 "
Other Ports Pine	46,000 "	44,000 "	13,000 "	23,000 "
Red Pine	52,000 "	26,000 "	13,000 "	15,000 "
Pitch Pine, hewn	774,000 "	903,000 "	188,000 "	162,000 "
" Sawn	547,000 "	654,000 "	141,000 "	155,000 "
Planks	89,000 "	94,000 "	23,000 "	48,000 "
Dantzig, &c., Fir	112,000 "	47,000 "	13,000 "	13,000 "
Sweden and Norway Fir	5,000 "	7,000 "	2,000 "	—
Oak, Canadian	494,000 "	254,000 "	67,000 "	165,000 "
" Planks	114,000 "	94,000 "	32,000 "	61,000 "
" Baltic	76,000 "	48,000 "	7,000 "	12,000 "
Elm	50,000 "	46,000 "	23,000 "	25,000 "
Ash	25,000 "	19,000 "	6,000 "	9,000 "
Birch	136,000 "	62,000 "	55,000 "	38,000 "
East India Teak	37,000 "	48,000 "	6,000 "	3,000 "
Greenheart	43,000 "	131,000 "	7,000 "	24,000 "
N. B. & N. S. Spruce Deals	15,748 stds.	7,825 stds.	12,603 stds.	9,639 stds
" Pine	857 "	630 "		
Quebec Pine & Spruce Deals	9,742 "	4,695 "	3,277 "	2,447 "
Baltic Deals	3,921 "	3,258 "	1,216 "	1,584 "
" Boards	177 "	347 "	65 "	78 "
" Boards Flooring	1,970 "	2,442 "	907 "	904 "

BLACK WALNUTS.

MY DEAR SIR,—I have received many enquiries as to where black walnut nuts were to be got for sowing this fall, and hope you will be kind enough to insert this note, so as to let the public know that Mr. Wm. Evans, of the Agricultural Warehouse, Montreal, has undertaken to procure the nuts from the West at a reasonable price for all those who would apply to him in time.

Those who wish to sow this fall ought to write to him at once. A bushel contains about four hundred nuts, more or less, so that people ordering a bushel or a fraction of a bushel will know how many nuts they will get. If possible, sow them at once where they are destined to grow, as the transplanting checks seriously the walnut by destroying the long tap roots. Prepare your ground carefully, the deeper and mellower the better ; sow the nuts as soon as you get them, about two inches deep, no more ; four feet apart on every side ; mark each nut with a picket to facilitate weeding. In the course of time, when they interfere with one another, you remove one row, and your trees will then stand eight feet apart, and owing to the close order in which they have been started will be long and straight.

If you have no ground ready for permanent planting sow them in nursery in a corner of your garden, in rows, eighteen inches apart each way and transplant permanently, at the end of the second summer. I tried, last fall, to plaster some of the nuts, as our farmers plaster their seed wheat, and found the result most satisfactory, in fact remarkably so, and would advise every one to try it with part of their nuts, and compare results.

Excuse this hasty letter ; I think it contains the most necessary information for this fall's sowing, but will be very glad to send any additional information to anyone who may want it.

Believe me, yours truly,
H. G. JOLY.

Point Platon, P. Q., Sept. 12th, 1882.

ANCIENT TREES.

A Philadelphia correspondent of the *Northwestern Lumberman* says :—Among the places of interest to lumbermen and others interested in trees is the square bounded by Pine, Spruce, Eighth and Ninth streets. Here is the Pennsylvania hospital, with ample grounds upon which are trees set out in ante-revolutionary days. Here are grand elms and gigantic sycamores. Some of the sycamores will scale well up to 3,000 feet—forest monarchs in the midst of a great city—primeval nature kissing the hand of art. Many varieties of trees can be seen in these extensive grounds, and they are so old that their genial shadows have refreshed many of the most notable men of the early days of the republic. Presidents have stood with uncovered heads beneath these branches, and the leaves quivered when the old bell rang out the first pæan of freedom to America.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

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MEN and women are equally benefitted by the use of that great brain and nerve rejuvenator, Mack's Magnetic Medicine, an advertisement of which appears in another column.

DAVY & CLARK, Druggists, Renfew, writes us June 3rd. "We have sold Fowler's Extract of Wild Strawberry for a number of years, and find nothing equal to it, for the purpose for which it is designed." Dr. Fowler's Extract of Wild Strawberry cures all forms of Bowel complaints incident to Summer and Fall.

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No Preparation on earth equals ST. JACOBS OIL as a *safe, sure, simple* and *cheap* External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

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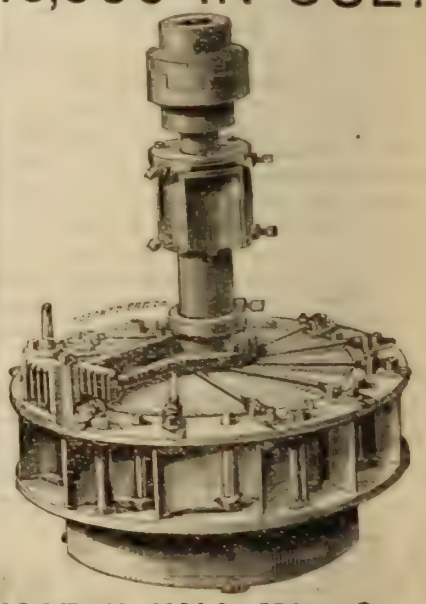

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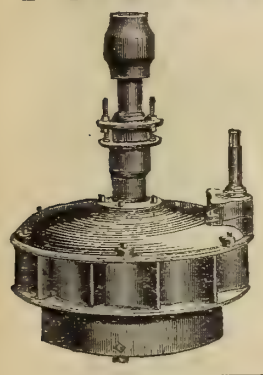

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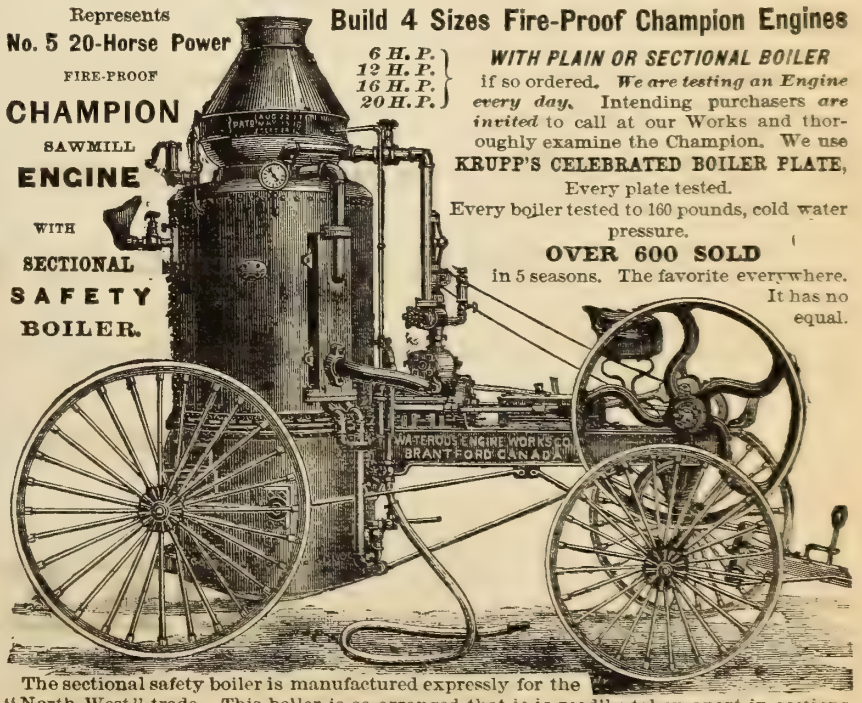

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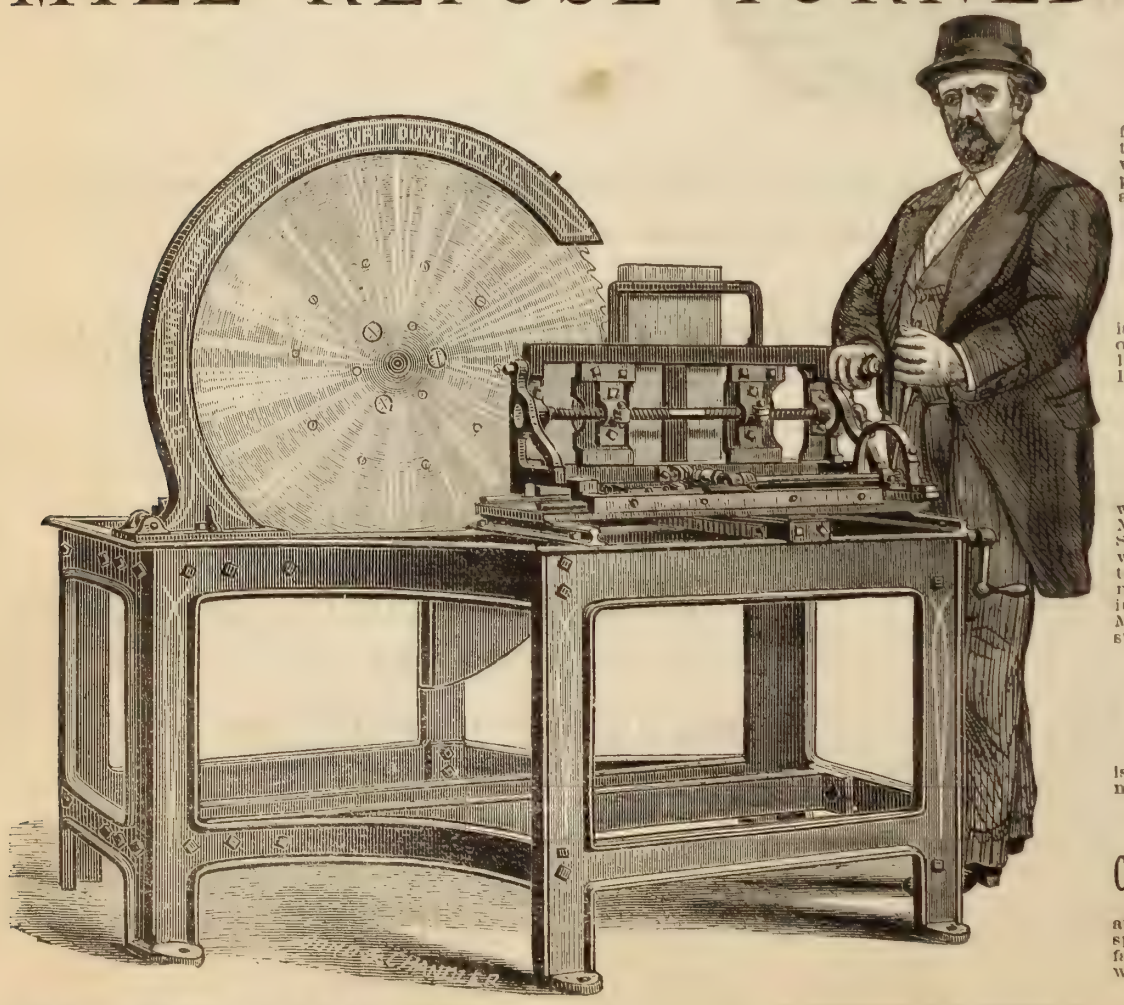

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VOL. 2. PETERBOROUGH, ONT., NOVEMBER 1, 1882. NO. 21.

TIMBER CLAIMS SPECULATION.

A writer in the New York *Tribune* who has been up through Dakota by way of the St. Paul, Minneapolis and Manitoba railroad, tells of some things which he learned about the "tree claim," business in that section. Claims to government land may be secured under the homestead act, pre-emption law, and the timber culture act—a quarter section under each. He says that the latter, the "tree claims," are the most sought after, and that they are taken for thirty or forty miles on each side of that railroad and sixty to seventy miles beyond its present terminus. But they are taken mostly for speculative purposes. In all the route he did not see but a few tree plantings, and they were very much neglected. The number of tree claims is limited by the law, but every one, so far as he could learn, had been taken, the reasons being that persons are not required to live temporarily or otherwise on the claim, and they are not obliged to do anything the first year. They "enter" their claim, and as soon as entered, offer their right for sale, asking a thousand or fifteen hundred dollars or more for it, according to location. They sell many of them to actual settlers, who are pouring in by thousands, and buying up claims wherever they can. The party who "enters" the claim does so for purposes of speculation only. The purchaser from him may, under the law, and does in nearly every instance, convert his "tree claim" into a pre-emption claim. Thus the tree-culture law becomes a dead-letter and means of speculation to those who never dreamed of perfecting title under the act or complying with its provisions. The Timber Culture Act was passed with the very best motives, to encourage forest growing in those barren regions; but it seems, according to nearly all accounts, to be practically a failure for the purpose intended. It sadly needs amendment.—*Lumberman's Gazette.*

WINNIPEG LUMBER DEMAND.

From the whir of machinery now to be heard along the river bank in this city, a person unacquainted with the state of business in Winnipeg would conclude that the supply of lumber turned out ought to meet any reasonable demand, even in a new and growing country like this. Inquiry into the matter, however, reveals a very different state of affairs. A *Commercial* representative has made some investigations of the facts, and he finds that our lumber dealers and manufacturers are hard pushed to supply the demand in the city alone, while orders from the surrounding towns have to be left almost unattended to. The extraordinary amount of building now going on in the city and the quantity of lumber required therefore cannot be comprehended after a superficial survey of the principal buildings now constructing. The suburban proportion of the work although made up principally of smaller business buildings and residences causes a great demand for lumber which only those who visit the outlying portions of the city can form anything like an accurate approximation of. The crowded state of this branch of business has no doubt been aggravated by the long blockades caused by the snows and still later by the floods of last spring. The supply from the south may be said to have been practically suspended for two months, and building operations during that interval were at a stand still. Making full allowance, however, for the exceptional circumstances of last spring the lumber trade is in an extra healthy state, with a heavy demand which will in all probability be a long lasting one.

The local supply of logs has filled but a small proportion of this season's demand, and heavy importations have had to be made from the United States, while in cut lumber the supply from the same locality has bean equally heavy. At present the booms on the river are so crowded with logs that large quantities have to be hauled up upon the bank. Seldom have our mills had such a supply ahead, and it is being steadily added to while navigation remains open. We may expect therefore that these mills will have a late run this fall, and that their producing capacity will be tested to its fullest extent till very near the close of the present year. We find also that the arrangements at the different logging camps for the coming winter are on an extensive scale, and will furnish for next summer the largest supply of logs ever brought out in the North-West.—*Winnipeg Commercial.*

TRAFFIC IN TAN-BARK.

A steamboat fitted up with machinery for grinding and compressing tan-bark has recently been built in Cincinnati. It is supplied with three engines, one for propulsion, one for grinding and elevating the tan-bark, and one for compressing it into bales for shipment. Forward, on what may be termed the forecastle, are located three hoppers, in which are the grinders, and after the bark has been ground it passes into a trough, where a spiral elevator takes it up and conveys it to the extreme highest point of the boat, where it is emptied into other hoppers, and thence conveyed to the various compressors. The machinery is ponderous but simple. When the bark is in shape for shipment or storage it is on the upper deck, lying on the floor. On either side of the compressors is an elevator, similar to those in common use in buildings, and on these the bark is conveyed, in its compressed form, to the hold of the boat, where it is stored. No barrel, bale, tie or other covering is needed to preserve it, as it is a compact mass, after undergoing the above process, almost as hard as rock, but will dissolve upon the application of water. Before being ground and compressed it is thoroughly dried, so that when ready for market there is not a article of moisture in it. Already the American Compressed Tan-bark Company owns 2,000 tons of bark corded on the banks of the Tennessee river, which was purchased from the owner by weight. Should the supply upon that stream become exhausted, there are many others which are lined by chestnut, oak, and hemlock; notably, the Arkansas river, where for a distance of 400 miles no timber has been cut. Should the present boat prove successful, others of a similar kind will be built to operate in diffierent streams and different sections. In America, or at least in this section of America, the price of loose tan-bark ranges from $10 to $15 per ton. Europe is generally supplied from France and Germany at $30 to $35 per ton. It is probable that for awhile most of that compressed on the boat just built will go to Europe, but after awhile it may be compressed in such quantities that much of it will be used at home.—*Northwestern Lumberman.*

THE NEEDS OF FORESTRY.

At the recent Forestry Congress at Montreal the following paper on "The needs of Forestry" was read by Mr. E. Gillivray, of Ottawa:—

SIR,—I have been requested by circular to prepare a paper on Forestry, and in attempting to do so I do not feel myself adequate to the task, with the great importance of wood to the present and future generations and the rapid decrease of our forests on this continent, which, from the first settlement of the country, it was found necessary to destroy for the purpose of making way for the agriculturalist. This art is the basis of all other arts, and in all countries coeval with the first dawn of civilization which is said employs seven-eighths of every civilized nation, and without this art mankind would be savages thinly settled through intermediate forests, and now except in new settlements the total destruction of our forests are unnecessary, and absolutely useful in many respects both for man and beast.

The Germans were the first, as far as I have been able to ascertain, to treat scientifically the management of forests and establish forest rangers and academies in which all branches relating to them were taught, and those institutions originated from the increasing scarcity year after year of the woods of that locality.

The Prussian Government also soon discovered that their forests were decreasing, and directed their attention to the forests of that country, so that at the present time no one is appointed in the forest department without going under a regular course of examination in all branches connected with the forests, and to serve personally in the forests for a certain length of time. The English forest laws have had only reference to the game laws of that country.

The French also paid some attention to their forests, and enacted a code of laws for the protection of the forests of France, but I have not been able to ascertain what they were.

And it would be well if the people of this Continent were to learn a lesson from those countries and educate its inhabitants to the preservation of our forests and study the question thoroughly, and establish forest academies and appoint men understanding the subject, and treat it scientifically. They should also have power from the government to prevent the spreading of fires, and punishing those who have been the means of starting or causing the spreading of bush fires and destroying immense forests annually, for it has been said by many of our leading lumbermen in this country that there is more valuable forest destroyed by fire every year than what is cut away for manufacturing purposes.

I well recollect the great fire of Miramichi in 1828, the destruction of property on that occasion; also in 1854, when the whole of the Upper Ottawa was on fire from carelessness in setting bush land on fire, which, it being a dry season, spread throughout the Upper Ottawa with frightful rapidity; also, in 1870 when the whole of the Ottawa Valley was in flames, covering in its ravages several counties in Ontario and Quebec that it was thought even by some that some fearful calamity was to happen, and only by extensive rain it was conquered.

I have read lately in some of the American journals that at the present rate of cutting timber in twelve years the country would be stripped of all its pine forests. Although Canada is manufacturing a large quantity of pine every year, it will take yet many years before the country is stripped of its pine forests; it is not only that we should be careful of our forests, but that new forests be created by transplanting. I am not prepared to say which are the most successful trees that ought to be transplanted, as they are too numerous to mention, for each locality has its own peculiar climate, and each may not suit to be transplanted indiscriminately. Thus if we had academies of forestry there they would be made a study and would then follow the recommendations of those professors, especially to those who never made it a study to transplant. We see every day by our own experience the necessity of transplanting trees along the highways, farms and the streets of your towns and cities; it has always been recommended that trees should be transplanted as near as possible like the soil which they are taken from and more likely to succeed, and to place them north and south as they originally stood, and likewise not to take them from too dense a forest, for they are less likely to stand the two extremes of cold and heat.

SAWMILLS were first used in Europe in the fifteenth century. Before that a man who swore he lost his leg in the army was generally believed.—*Exchange.*

HAILSTORMS AND FORESTS.

The Geneva correspondent of the London *Times* writes, under date September 1 :—"Hailstorms, as is well known, often play havoc in Switzerland as well as in other parts of Europe. They generally last only a few minutes, but in that time the crops of the whole district are destroyed, trees stripped of their fruit and leaves, and even the potatoes in the ground hacked to picces. Birds are sometimes killed by the hundred, and a grape-vine touched by a hailstone is ruined for ever. Seven years ago there was a hailstorm in this canton, which in less than five minutes did damage estimated at a million of francs. In some districts there are mutual hail insurance societies, as in other countries there are mutual fire insurance societies. In these circumstances everything relating to the phenomena and causes of these visitations is studied with great interest, and papers on the subject read at the late meeting of the association of Swiss Geographical Societies, held this week at Geneva, by Herren Beaumont and Riniker, of Aargau, are attracting considable attention in scientific circles. The utility of forests as a safeguard against avalanches and a hindrance to *tourments* and snowdrifts has often been pointed out, but it has never before been suggested that forests are a preservation against hailstorms. Such, however, is the opinon of Herr Riniker, who is chief forester of Canton Aargau. He says that where there are forests there are no hailstorms, and in support of this theory he adduces a remarkable fact, for the accuracy of which he and many others can personally vouch. In the south of Aargau there is a little chain of mountains known as the Lindenberge. The Lindenberge are about twenty kilometers long, of an average height, above the sea level, of some eight hundred feet, and completely covered with wood. About twenty years ago, the forest was divided in two places by wide gaps, with the consequence that the valleys at the foot of the mountains were soon afterward visited with frequent hailstorms. The hail-charged clouds were seen to traverse the gaps. In 1868 the wider of the open spaces were closed by a plantation of firs, and since 1871 no hailstorm has crossed the forest. In explanation of this phenomenon Herr Riniker suggests that, as hailclouds are saturated with positive electricity, and trees conduct from the earth negative electricity, the meeting of the two currents develop sufficient heat to prevent the complete congelation of the clouds and even to thaw the hailstones contained in them—for the clouds of this description pass very near the earth—and so convert the frozen particles into rain. If further observation should confirm the accuracy of Herr Riniker's conclusions in this regard, the importance of forests in countries where hailstorms are frequent will be greatly increased."

OUR TRADE WITH ENGLAND.

The *Timber Trades Journal* says :—It is comforting in the face of heavy Baltic stocks to turn to the supplies already in hand from British North America. In both pine and spruce the stocks continue moderate. The former are short of last October's stocks by 212,439 pieces, while spruce are less than those of a twelvemonth ago by 132,780 pieces. Battens, in both pine and spruce, are also behind the stocks of a year ago of similar descriptions, and the same may be said of pine and spruce ends.

It is a question, however, whether the comparatively short supplies of pine are not in some measure attributable to a falling off in the consumption of that particular kind of wood in this country rather than to a diminution of the forest productions in Canada. With the improved trade in the United States and the falling off in the demand from the mother country, producers may be leaning towards a home trade, and so cutting less and less as time rolls on for the European markets in proportion as they can dispose of their stuff at a more renumerative rate to consumers on the spot. Anyhow the inclination has been apparently to send less and less pine to the English market for several seasons past, and either some causes are operating such as we have described, or else the stocks are in the hands of those who are able to regulate them on a basis of moderation that has never yet been attempted. That some cause is at work to keep stocks low is evident, for though lower port spruce stocks have been at times inordinately heavy here, we have latterly become accustomed to see only moderate supplies of the more valuable description of Canadian wood. It is also open to question whether the limited nature of the spruce and pine stocks will be of help to the heavy supplies from the Baltic ports. Pine and spruce do not generally come in contact with redwood from the north of Europe, the first named being used for totally different purposes, but whitewood will of course be materially assisted by the short supply of spruce; but, as the bulk of the stocks is redwood it becomes of less importance to the market here the state of the spruce stocks. Of course it is still on the cards that large shipments should be made of the last named commodity yet, for we cannot see how a ring could be formed in the spruce market, whatever might be the case with regard to pine, and, only that we have advices which put the freights from the spruce ports as rapidly rising, while at Quebec vessels are plentiful, and can be secured at moderate rates, we should look for some heavy additions ; however, this month will either assure the continuation of the present shortage of Canadian goods throughout the winter, or solve the mystery attaching to the fall shipments. Pitch pine, and in fact nearly all the floated goods are less in stock now than a year ago, the exception being red pine timber, the demand for which is not particularly active just at present.

REMOVING RIVER OBSTRUCTIONS.

To the Editor of the Scientific American :

In your issue of the 16th inst. I noticed an article on the removing of sand bars, etc. The idea of floating or washing out obstructions of this kind in rivers is not new to me, as I have advocated the system for the Mississippi, with its wonderful shiftings, on the following plan. Have large flat bottom boats with heavy steam machinery, and supplied with fans or force pumps whose power would be conveyed to the object to be removed through hose weighted so as to drag on the bottom when the power is being exerted against the obstruction. The hose (one or more) to be put from the forward part of the boat and adjustable to the depth required. In the after part of the boat, and at proper depth below the surface of the water, have revolving attachments, constructed so that they will draw the water from under the centre of the boat and throw a swell toward each side, which will carry a quantity of the floating or dislodged matter beyond the channel. To prevent creating an obstruction by the settling down steam, it would only be necessary to run further down each time the route is gone over. To keep a river open in this way it would require boats to be stationed at such distances as could be gone over each day, or as occasion required, and I believe the cost would be much less than dredging, and certainly always leave a clear channel. R. H. ANDREWS.

Washington, D. C., Sept., 1882.

PROTECTING THEIR FORESTS.

The *Northwestern Lumberman* says:—Mr. N. C. McFarland, commissioner of the general land office at Washington, has addressed the following circular to the timber agents throughout the country :

" The fact having been brought to the notice of this department, that extensive forest fires from time to time, in different sections of the country, are destroying vast amounts of timber upon the public land, and no means having heretofore been provided by the Government for the purpose of checking or preventing the same and preserving the public timber from such destruction, your are hereby informed that it will hereafter be a part of the duty of the special timber agents of the general land office to protect and preserve the public timber from this kind of waste and destruction as well as from destruction by the woodsmen, or from any other source.

You are, therefore, hereby instructed to keep yourself fully informed to as the condition of the timber upon the public land in your district, and to use your best endeavours to protect it from waste and destruction from any and all sources ; and to this end—where there are state or territorial laws for the preservation of timber—you are authorized and directed to co-operate with the state or territorial authorities and to aid and assist them in enforcing said laws.

Should your at any time receive information of any forest fire being in progress in your district, you will at once proceed to the locality of the same and use all possible means to check its progress and extinguish it.

Should it be necessary to employ assistance in such case, and the emergency be such that it would be impossible to inform this office of that fact and to receive special instructions, you are hereby authorized to expend a reasonable sum for such purpose, but you will at once inform this office, by telegraph, of the number of persons so employed and the total probable expenses.

One of the most dangerous elements to contend with in case of forest fires, and one of the principal auxiliaries to the spread of the same, is the dry tops of trees which parties leave upon the ground after having cut and removed the timber for saw logs and other purposes. When the tree tops can be profitably cut into wood, the person cutting such trees on public land—when such cutting is authorized by law—must cut the tops into wood, or at least cut up and pile the bush in such a manner as to prevent the spread of fires.

A failure on the part of woodsmen to utilize all of the trees that can profitably be used, and to take reasonable precaution to prevent the spread of fires, will be regarded by this office as wanton waste, and subject them to prosecution for wanton waste and destruction of public timber.

A SINGULAR MISFORTUNE.

The *Building News* relates to a singular misfortune which has occurred to a small church in Andover, Mass., whith seems to be in process of eaten up bodily and swept away. The church was erected about six years ago, and is finished with what is said to be ash, but has more the appearance of chestnut, which often closely resembles the coarser kinds of Ash. A year or two after its completion the sexton noticed little heaps of dust on the carpet near the walls. These grew more and more frequent, and appeared in various portions of the building, so that they had to be gathered up regularly every week, and on searching for their cause the wood of the base-boards and portions of the pews was found to be completely riddled with holes make by small, round, black and blue worms, the *debris* of whose boring fell out occasionally upon the floor in the form of dust. Unlike most boring worms, this species seems not to object to the taste of varnish, for the polished surface of the wood is pierced in thousands of places. The stock was regarded as completely seasoned and in good condition when put into the building, but it would seem that it must have contained the embryos of the insects, for the finish of the galleries is attacked equally with that of the ground floor. If any of our readers, adds the *News*, met with a similar case we should be pleased to receive an account of it, and if any know of a remedy, the the trustees of the church would be glad to avail themselves of it.

MENOMINEE MOVEMENTS.

In the Menominee, Mich., district, operations promise to be active. The Kirby-Carpenter Company, with 29 camps and 200 men, expects to bank 70,000,000 feet of logs this winter, and the Ludington, Wells & Van Schaick company 55,000,000 to 60,000,000 feet. The Girard Lumber Company will run five camps, and counts on 10,000,000 feet. It is said that Ramsey & Jones will have 12,000,000 feet on the landing by April, and will saw the entire stock by the fall of 1883. The Bay Shore Lumber Company will operate five camps, mostly on the Deer, and cut 10,000,000 feet. M. F. Merrick will cut 10,000,000 feet, half of which will be sawed at the Florence mill, and half at the mills at the mouth of the river. Spies & Martin are to put in 8,000,000 feet, that firm having piled most of this year's lumber cut. S. Coleman will bank 10,000,000 feet. The Ludington, Wells & Van Schaick Company recently purchased 25 horses, and the Kirby-Carpenter Company bought 12 teams, weighing on the average 1,400 pounds. The H. Witbeck Company will cut about 25,000,000 feet. The N. Ludington Company will bank 30,000,000 feet on the Menominee, and 8,000,000 on the Escanaba.—*Northwestern Lumberman*

MANITOBA PINE.

An Eau Claire correspondent of the *Pioneer Press* says one of the lumbermen of that city has been up in Manitoba trying to secure a limit on Canada territory, of which it is estimated there is, taking all the area north of the United States, on the north shore of Lake Superior in Canada, some 700,000,000 feet of timber that can be sawed. Of this one-eighth is white pine, the remainder Norway, etc., and is found on the islands of the Lake of the Woods, Rainy Lake, along the rivers and islands about the small lakes and among the rocks and marshes of the country north of the Lake of the Woods and Rainy Lake. The northern limit at which white pine grows is perhaps 75 to 100 miles north of the Canadian and United States limit. All the available timber is sold, mostly to parties at Keewatin, Rat Portage, St. Francis and Winnipeg. There is little timber left back from the streams, and there are small patches on the ridges and around the small inland lakes. The general quality of all the lumber in that country is not merchantable. The correspondent referred to has but a poor opinion of it.

THE Northern Pine Land Company, of Minneapolis, Minn., lately filed articles of incorporation. The object of the corporation is to buy and sell pine and other lands, manufacture and deal in lumber, and do a general business. Its capital stock is $500,000. The incorporators are Joseph Vilas, of Chippewa Falls, Wis. ; Franklin W. Pitcher, Boston, and W. W. Huntington, S. G. Cook and Charles H. Maxey, of Minneapolis.

A QUEBEC contractor has engaged to supply the French Government with tamarac railway ties. The lumbermen in the Ottawa district are expected to be all wealthy at the close of another good season's operations. Facts like these show what valuable possessions forests are, and the necessity of protecting them against wasteful destruction and of replenishing what is taken for commercial purposes. Our Forestry Association was formed none too soon.

THE *Timber Trades Journal* in an article of the Quebec Forestry Association says :—In conclusion, we may remark that, whatever indifference may have been shown to the science of forest culture in the past, it is not likely to be neglected henceforward ; and the promotion of such institutions as "the Canadian Forestry Association of the Province of Quebec," supported equally by the wealth, talent and industry of the timber-producing regions, will not only check the wanton destruction of existing forests, but will cherish the restoration of others, wherever it may be necessary to do so ; whereby the trade of the lumberman need never decay, even in the land most familiar to his labors ; and with this system in process we may reasonably conclude that as long as he can carry an axe he will never be at a loss for a tree to cut down with.

BETTER THAN GOLD.—A good name, good health, a good companion and a bottle of Hagyard's Yellow Oil are among the first requisities for human happiness. Yellow Oil cures rheumatism, sprains, lameness, bruises, burns, frost bites, croup, sore throat, and all pain and inflammation.

A FACT.—If you suffer from chronic disease, and have little faith in advertised remedies, and have sought vainly for a cure, consult your druggist, or address T. Milburn & Co., Toronto, for proof positive regarding the merits of Burdock Blood Bitters, the great regulating blood purifying tonic, that acts on the liver, kidneys, stomach, bowels and skin.

RHEUMATISM.—This painful disease that so often cripples for life, arises from poison circulating in the blood, and often from an excess of acid. Inflammation is developed in the muscles, ligaments and joints, by colds, damp clothing, &c. Liniments are serviceable to relieve ; among many, Hagyard's Yellow Oil is preferable. To eradicate the rheumatic poison from the system, nothing can surpass Burdock Blood Bitters.

BRITISH IMPORTATIONS.

The *Timber Trades Journal* says :—The Board of Trade timber returns, for the month of September have nothing alarming in them as to the state of the importation. The increase is not great over the quantity brought forward twelve months ago, and in some instances there is a great falling off, that is, from the Gulf and River St. Lawrence the Quebec and lower port supplies being very considerable short of the quantity sent in during September last year. It is true that the influx of that month was unusually great, exceeding even that of September 1880, by as much as 846,456 loads exceed 817,311, but this last month was greater than either, having gone to 859,587 loads, notwithstanding the shortage from the Canadian ports. But there is some satisfaction in the circumstance that the excess of this year over the last has not been much increased by the large importation of September. It was 789,240 loads last month, and it is only 802,321 now, or 13,081 loads more by the importation of last month than it stood at when August closed. The shortage of British North American wood on the month as compared with the same month last year was about 90,000 loads, so that the increase from other countries (exclusive of the United States, which was about 5,000 loads short) must have been for the month over 100,000 loads. From these figures it would appear that while our trade with Sweden and Norway in the commodity of wood is largely expanding, that with our colonies is diminishing. In the whole nine months the increase from Sweden and Norway as compared with the same period last year was no less than 408,477 loads, while instead of an increase from Canadian waters, there is for the same period a deficiency of 57,513 loads. Our Colonial friends augur, looking at the short supplies from their country, that prices here must rise. But how can they in the face of such overflowing supplies from Northern Europe? Nothing but the great elasticity of trade this year and its ever-enlarging demands could have prevented a reaction that would have been disastrous to the timber interest. It has, however, stood its ground wonderfully, and every confidence seems to be felt that it will do so still.

STOCK AT THE CLYDE.

The following is a comparative statement of the leading wood goods on hand at Clyde ports, 30th Sept., 1881 and 1882.

	1882 *Loads.* *(50 c. ft.)*	*1881.* *Loads.*
Quebec waney boardwood	10,701	11,891
" yellow pine	13,328	28,564
" red "	5,732	7,776
" elm "	1,834	4,943
" oak logs	5,326	7,172
" ash	344	719
Birch, all sorts	620	1,599
Pensacola pitch pine—hewn	11,243	16,302
" sawn	18,716	13,721
" planks	998	1,736
	Pet. stds. *(165 c. ft.)*	*Pet. stds.*
Quebec yellow pine deals	3,194	5,950
" red pine deals	267	583
" spruce deals	1,024	1,071
Lower port spruce deals	684	1,931
" pine deals	251	1,098
	Mille. *(1,200 pcs.)*	*Mille.*
Quebec pipe staves	8½	19
" puncheon	23	84
States staves	292	16

THE AUSTRALIAN TRADE.

Messrs Gemmell, Tuckett, & Co.'s report, dated Melburne, August 28th, says:—The wet weather prevailing of late has somewhat retarded outdoor building operations, and, notwithstanding that August is proverbially the dullest month of the year, a large consumption of all descriptions of building materials has been going on. Brickmakers cannot overtake the demand, and there is abundant employment for masons, carpenters, bricklayers, plasterers, &c. American lumber.—Imports,: 63,088 ft. w. p. t. and g. ceiling; shelving and clear pine, *nil*. A fair amount of business has been carried through at auction at prices fully sustaining last months quotations. W. p. t. and g. ceiling realized £10 2s. 6d. to £9 10s.; w. p. shelving, £11 17s. 6d. to £0 17s. 6d.; 1 in. clear pine, £13 17s. 6d. to £13 10s.; 1¼ in. do., £15 to £14 15s.; 1½ in. do. £15; 2 in. do., £15 to £14 10s.; 3 and 4 in. do., £15 17s. 6d., 1¼ in. Canada do., £12 12s. 6d.; 1¼ and 2 in. do., £12 17s. 6d.; 1½ and 2 in. Michigan do., planed both sides, £14 12s. 6d. to £14 2s. 6d. per M. feet super. If shipments are moderate, prices will advance, as the trade is not heavily stocked.

FOREST REPRODUCTION.

The *Northwestern Lamberman* says :—On October the 7th some comment was made in the *Lumberman* on a quotation in Prof. Sargent's article in the *North American Review*, in which quotation it was inferred that the Prof. held that the forest lands of the entire northern half of this country but slowly reproduce timber where once it has been destroyed. In a private note he informs us that his views coincide with those of the *Lumberman* in regard to eastern forest lands—namely, that they do rapidly reproduce tree growths. But he holds that in the more arid regions inclosed within the Sierra mountains of California and eastern range of the Rockies, and where the rain-fall is too small and irregular to produce a vigorous forest growth, reproduction is slow. So far as the Atlantic region is concerned the whole argument of the article is based on the power of the forest to reproduce itself anywhere when the rain-fall is copious and regularly distributed. All that is necessary to preserve the magnificent forests of the country east of the prairies is to guard them against forest fires.

Lumbering Operations.

THE Belleville *Intelligencer* says :—We have already established a shanty in Methuen," said Mr. Callahan one of Rathbun & Son's foremen in reply to a query of a representative of the *Intelligencer* last night, "and we employ 140 men there" he added. "For the present" he went on, "that gang will operate in Methuen and Faraday, and its cut will be put into Potash Creek and be sent down the Otonagon River. "As time advance" he continued, "the force of men will be increased and after the first hard freeze the force will be largely added to. There are already five shanties in operation in Tudor and Grimsthrope and over 140 men are engaged in them. Of course this number will be augmented before winter for we expect that the Moira will carry down a very large cut. We also have two shanties on the Napanee river and we are going to send 25 men up the Salmon river to start a shanty in a very short time. Several jobbers are already at work for the firm and the prospects are that the coming winter will be a lively one."

Lumbering Operations of the Future.

The four Atlantic pine states, including the whole of Florida, contain less than twenty-four billion feet of pine. The most accessible timber situated along the stream and railroads has already been removed, and much of the remainder has been injured in the manufacture of turpentine. Alabama and Mississippi contain great bodies of pine, but the the three pine states west of the Mississippi pine forests, in which the sound of the logger's axe has never been heard, extend over tens of thousands of square miles. Here during the next twenty-five years will be seen, we believe, the great lumbering operations of the continent—if indeed these forests can supply during twenty-five years the demand which will be made upon them. It is not easy to forsee how great these demands will be. The population of an enormous territory must procure its building materials from these transatlantic pineries.—*Boston Bulletin.*

The Reason.

The *Lumberman's Gazette* says :—The inducements for Canadian labourers, who have flocked to Michigan to work in the lumber woods heretofore, to stay at home are such that comparatively few are coming over. It is explained in the following item from Montreal, in the Toronto *Mail* of the 18th :—

"Between three and four hundred men left here to-day for the Ontario lumber regions. Their wages range from $1.50 to $2 per day with board.

This is better than paid in the Michigan pineries.

F. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

LEATHER BELTING

First Prize, Provincial Exhibition.....Ottawa, 1875
First Prize, Provincial Exhibition..... Hamilton, 1876
First Prize, Provincial Exhibition.....London, 1877
First Prize, Industrial Exhibition ..... Toronto, 1879
First Prize, Industrial Exhibition..... Toronto, 1880
International Medal, Centennial Ex.....Philadelphia, 1876

None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

L21

81 Colborne Street, Toronto

ARRIVED AT QUEBEC.

The *Chronicle* gives the following list of rafts, etc., arrived at Quebec :—

Oct 9—J M Irwin, white pine, etc, Woodfield Harbour.

Oct 10—T Lafontaine, deals, New Liverpool cove.

Oct 11—E L Kelsey, staves, sunday coves.

Oct 12—British Canadian Lumber and Timber Co. white pine, St. Michael's cove.

P S German, deals, Portneuf.

Oct 16—John McRae & Co, staves, Indian cove west.

A Caldwell & Sons, white and red pine St. Lawrence Docks.

Oct 19—P McLaren, white and red pine, St. Lawrence Docks.

British Canadian L & T Co, white and red pine, St. Michael's cove.

THE British Canadian Lumbering Company of Ottawa expect to have shipped this season from Pembroke to the Quebec market by the C. P. R. 1,000 car loads of square timber. There is said to be in the vicinity of two million feet of lumber, all to be disposed of on the Quebec market. There has already been sold this year about 9,000,000 feet.

CASTORINE MACHINE OIL

CASTORINE AXLE GREASE

24L13

PERRY DAVIS'

VEGETABLE

PAIN KILLER.

This celebrated Medicine is recommended by Physicians, Ministers, Missionaries, Managers of Factories, Workshops, Plantations, Nurses in Hospitals,—in short, everybody, everywhere who has ever given it a trial.

TAKEN INTERNALLY, it cures Dysentery, Cholera, Diarrhœa, Cramp and Pain in the Stomach, Bowel Complaint, Painter's Colic, Liver Complaint, Dyspepsia or Indigestion, Sudden Colds, Sore Throat, Coughs, &c. Used externally, it cures Boils, Felons, Bruises, Cuts, Burns, Scalds, Old Sores and Sprains, Swellings of the Joints, Toothache, Pain in the Face, Neuralgia and Rheumatism, Chapped Hands, Frost-bitten Feet, &c.

The PAIN-KILLER is sold by medicine dealers throughout the world, Price 20c., 25c., and 50c. per bottle.

THE Puget Sound Mill Company, operating at Port Gamble, Port Ludlow and Utsalady, owns upwards of 700,000 acres of land among its other possessions.

A NEW dam and mill is being built at Cadyville, N. Y., in the Saranac river district, and in the removal of 10 feet in thickness of mill debris, edgings, sawdust etc., it is thought that sunken logs enough will be recovered to pay for clearing out the rubbish. Logging and mill operations on the Saranac will be very active for the coming year.

HYDROLEINE

(HYDRATED OIL.)

An artificially digested Cod Liver Oil.

For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

For sale by all Druggists.

A CURE GUARANTEED.

MACK'S MAGNETIC MEDICINE.

Brain and Nerve Food

For Old and Young, Male and Female.

Positively cures Nervousness in all its stages, *Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Supermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs in either Sex.* ☞With each order for TWELVE packages, accompanied with five dollars, we will send our Written Guarantee to refund the money if the treatment does not effect a cure. It is the **Cheapest and Best** Medicine in the Market. ☞Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at 50 cts. per box, or 6 boxes for $2.50, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont.

Sold by all Druggists in Canada. L23

THE U. S. TARIFF.

The Chicago *Northwestern Lumberman* says: Pursuant to appointment at the price list meeting, September 27th, the lumbermen of this city met at the exchange, on Tuesday, Oct. 10th, to further consider the tariff question. The business of the meeting was to receive the report of a committee appointed at the meeting on September 27th, and act on it for or against.

Mr. Dean took the floor, and, as chairman of the committee, made a verbal report, reciting that the majority had adopted the address made by Mr. Dean at the previous meeting, advocating the removal of duties on Canadian lumber, and giving the reasons therefor. He said that the committee had given the address careful consideration, and had adopted it as a whole, recommending that a copy after having been certified to by the trade, be forwarded to the tariff commission. A minority—A. G. Van Schaick and Addison Ballard—had objected to the conclusions of the majority, and had made a minority report. Mr. Dean, in conclusion, moved the adoption of the committee's report, with a request that the secretary certify to a copy, and forward it to the tariff commission.

A. G. Van Schaick, in behalf of the minority of the committee, then obtained the floor, and proceeded to read a report, which was as follows:—

MR. PRESIDENT:—As a member of the committee I desire to enter my protest to the adoption of the report now before the meeting, and, if in order, I will endeavor to present good and sufficient reasons in support of my position.

My first and principal objection arises from the fact that the committee does not include representatives from all the branches of the lumber trade of this port, while to arrive at correct conclusions in any matter of importance and mutual interest, all should be fairly represented. But three of the seven departments of the lumber business were included, and four of the committee are dealers, who numerically control the vote of the meeting.

The committee was called together by its chairman, and at its first meeting, in the absence of Mr. Anderson and Mr. Martin, solemnly proceeded to read from the columns of the *Northwestern Lumberman* the appeal to the tariff commission, which they presented to-day as their report; although the same paper was read to a meeting held in this room August 27, and by that meeting ordered referred to a committee. The majority of the committee present adopted it as their report to this meeting, without addition or alteration, and with a full knowledge that it was the ideas of one member of the Chicago lumber trade.

While I have a high regard for the ability of the author of the report—and his judgment and experience may exceed that of the six other members of the committee combined—I am compelled to question the correctness of same of his arguments and conclusions,

I submit, therefore, that a report which advances the views of but one member of the Chicago lumber trade will not be sure to convince that portion of this meeting whose business it assails, and unless fully three-fourth of this meeting concur in adopting the report after adding some important amendments, it will be greatly to the interest of all present that no action be taken, but that it be laid upon the table. With these preliminary remarks, I will proceed to review the report of the majority of the committee.

From a careful study of the paper I gain some valuable information, and commend it to the attention of lumbermen generally. I also notice apparent contradictions, and an intention of concealing some important facts that bear directly on the statements made, and the suppression of collateral facts that could weaken the author's theory. While under the screen of an apparent interest in the direction of supplying the west with cheap building material, the author takes occasion to urge measures that will injure his rivals in the local lumber business, without showing that any benefit will accrue to any but Canadian timber owners. From the first paragraph of the report I quote the following:—

"We believe most earnestly that the time has come when it would be greatly to the interest and good of the people of the United States to remove the present import tax upon lumber, which may conveniently be brought to them from the Dominion of Canada. In support of this argument we would say that the wonderful growth of the United States, and especially the development of that portion lying west of the lakes, has been due to the readiness with which cheap dwellings, barns, fences and graneries were obtainable through the plentifulness of a cheap building material, such as is found in the white pine lumber supply."

The committee and every one present are aware that the cheap building material that has been such a important factor in supplying the cheap homes, barns, fences and granaries in the West, was almost wholly supplied from mills in the United States. They also know that during 25 years past less Canadian lumber has passed the Straits of Mackinaw, bound to ports of Lake Michigan, than the single port of Alpena has consigned westward during six years past; and to this time the lumbermen of the United States have fully met the demand for cheap lumber, and made the West the cheapest lumber market in the whole world.

I believe that every manufacturer present will endorse the sentiment of the committee that cheap lumber should be supplied to continue the vast improvements yet required to develop the territory west of the lakes, but they are amazed at the recommendation of the committee that it should be imported from a foreign country, which the report states cannot supply and land lumber at western ports as cheaply as similar lumber can be supplied by American mill owners.

I again quote from the report:

The capital invested of necessity in pursuit of this industry is greater in Canada, in proportion to the extent of work performed, from the necessity to acquire the large land limits, which alone can be obtained from the Canadian Govment; the American Goverment selling as low as 40 acres at a cost of not over $100, while nothing less than a township is disposed of by the Canadian Government. The number of men employed is not less, per thousand feet produced, in one country than in the other, and the capital employed in saw-mills will bear the same comparison. It would be folly to assert that greater intelligence enables the Canadian laborer to preform a greater amount of work in the saw mill than does the American, while it is a fact that by improved methods and machinery, more generally adopted in this country than in Canada, the cost of producing lumber in Canada is greater than in the United States. In the matter of transportation the Canadian again labors under a disadvantage in being, in the main, and especially in the western portion of the province, whence must come a majority of the timber, at a long distance from markets, whereas the American operator can utilize lake or rail transportation at his pleasure, and with but short lines and a low freight rate. The disadvantages under which the Canadian operator labors we assert to be more than the equivalent advantages he may possess, so that it may with positiveness be assumed that Canadian lumber laid down upon the docks of Chicago, or any other large distributing centre, will have cost the Canadian as much, if not more, than the same quality of stock has cost the American manufacturer at the same point.

We assert that this timber has cost, and does cost, those who control it for utilization a larger sum per thousand than was obtained by the United States Government from those to whom the timber lands of this country were disposed; that the cost of manufacture in Canada is not below the cost to the American manufacturer; and that the average cost of transportation of a majority of that portion of the present Canadian pine which would naturally reach the United States market, is considerably in excess of the cost of placing the native product in the hands of the consumer.

An increased demand from the markets of the United States for Canadian lumber, and the increased cost to produce it, on account of diminishing supply and less accessible timber, will naturally advance prices, and it becomes a mystery to me how cheap homes, barns, etc., can be constructed to advantage from this timber, that cannot be landed at western ports in competition with American lumber at twice the cost of the standing pine. It is believed by many Americans that an imported article has merit that warrants extra cost and more trouble in securing it, and wine, fine clothing, jewelry and many kinds of merchandise, are imported to gratify luxurious tastes and add to the happiness of the consumer, at the expense of his pocket. I fail to see why lumber should be added to the list, and must, therefore, dissent from the report.

The next, and to me most important statement contained in the report, alludes to the cost and value of standing pine timber. In mentioning the timber of the United States now owned by all classes of citizens, it is stated as having been donated to its present owners by the government, or having been purchased at $1.25 per acre, and I again quote from the report:

"In support of the first proposition, we assert that the liberal policy of the American Government has permitted the timber lands of this country to be purchased in fee-simple at from $1.25 to $2.50 per acre. These lands are estimated in general to yield 5,000 feet of timber per acre, while a large proportion of them have and will yield from 10,000 to 15,000 feet per acre. The standing timber, therefore, has been sold by the government at an average probably less than 25 cents per thousand feet, including the ownership of the land, which in many cases sells at from $5 to $10 per acre after being denuded of its timber, such land being found in many parts of Michigan, Wisconsin and Minnesota, to be unsurpassed in value for agricultural purposes.

The American Government has virtually presented to the lumbermen of this country each section of pine land, together with the timber on the same, of a value of $14,400, for the mere nominal sum of $1,600, or, as he can readily realize that sum for the stripped lands, has made him a gift of the timber for his labor in clearing it."

It will be observed that throughout the report of the committee the value of American pine is stated at the price current 15 to 20 years ago, allowing nothing for taxes or for interest on capital, or any loss by fire, windfall or flood, while the value of Canadian pine is given at its current price in the hands of present owners, and is always placed at its highest known value, and an outside estimate to cover its manufacture and transportation. Every member of the committee knew that the present value of timber in both countries would be considered by the tariff commission if taken into account by them, and they would accept the statement in this report that the value of pine stumpage in the West is not far from $4.50 per thousand, as stated in the report of the committee. Each member also knew when he voted to present this report, which speaks of donations, etc., that of the whole amount of lumber that will seek the markets of the West in 1882, but a small proportion was cut from lands purchased direct from the United States by the manufacturer. I regret that this spirit of unfairness is shown in the statements contained in the report, and believe the report should be amended to correct omissions and add facts. I regard the report as a special plea in the interests of Canadian lumbermen, and if the lumber of Canada cannot be sold in the markets of the West at lower prices than American lumber, why should the people of the West consume a commodity produced in a foreign country, with foreign labor, provisions and capital, in mills built with foreign machinery with money drawn from the consumers of the United States, who are having all the benefits enumerated above, and buying cheaper lumber manufactured by Americans?

Such a report should not be adopted, and it cannot receive any favor from the tariff commission or from Congress. In their proposition to ask the removal of the present duty on Canadian lumber, the committee ask no reciprocal action by the Canadian legislature, or an act to repeal the present larger tax levied on lumber shipped from Wisconsin and Minnesota into the British possessions, which is a tax of 20 per cent, on undressed lumber and 25 per cent. on dressed and manufactured lumber, based on the actual cost of the lumber, and nearly double the present import duty of the United States on Canadian lumber. A proposition to ask that the duty on merchandise and material used in the manufacture of lumber by Americans, in case lumber was placed on the free list, was not considered by the committee, whose apparent desire was to place the whole burden upon the manufacturers.

I have faith in the good judgment of Chicago lumbermen who are present, and believe they will not indorse any report which assails the business of one class of lumbermen and shows no advantage to any class of citizens. I shall not believe that in Chicago, the only port in the West that contains a majority of lumbermen without mills and pine lands, that an effort will be made to injure the business of lumber manufacturers without stating a single benefit that will accrue to lumber dealers or consumers.

To this time I have proceeded on the assumption that the position taken by the committee was by them supposed to be true—that Canadian lumber will actually cost more, delivered at the ports of the United States, than American lumber, but what evidence have they presented that their statements are correct? In the matter of labor I cannot concede that the report is correct, and when horses are brought to this city every week from Canada, and 25 per cent. duty paid on them, I know they are cheaper in Canada, and I challenge any member of the committee to state, of his own knowledge, the prices of lumber supplies in Canada. The report was adopted, with little or no knowledge of the statements it contains, and no candid man present will cast his vote for the adoption of the report unless he can assert that he knows its statements are correct.

Iron costs much more in the States than in Canada, and it enters largely into the production of lumber. Matches, sugar and many similar articles cost more, and whoever by his vote indorses the report, certifies to that of which he really has no personal knowledge, and which the committee have assumed to be facts without having tested the Canadian market to verify.

Passing to that portion of the report which suggests that, as the supply of American pine is rapidly decreasing, and will soon be exhausted, and the consumers of the United States should draw upon the supply of Canada to eke out the remainder of American timber, I submit that if the amount of timber is correctly understood, and the supply limited, there is no good reason, when the stock of both nations can be drawn from at will, why that portion from the great increase of population and extension of railway lines across the country, that cause numerous forest fires, should be allowed to remain, while the portion situated in an isolated and sparsely settled country, whose changes are slow and do not involve risk of fire and destruction, should be placed first upon the markets of the country, especially when it is claimed that it must be done at a greater cost—which, however, I do not believe. Besides, Canadian timber is, to some extent, carried by the government at a much smaller cost for taxes and interest than American pine timber, and if either is to be cut early it should be that which is most likely to suffer loss, which will prevent its being made useful in developing the country which requires more than can be supplied.

If the members of the committee who recommend its adoption, have indorsed the sentiments it contains, were philanthropists, they would advise the use of iron, slate, brick and tile, and material that is used in the older countries of the world, to prevent the use of two much lumber. These articles can be produced in their own country, and thereby add greatly to its prosperity and wealth, and at the same time employ its population to advantage. Or they should assist in removing one-third of the present supply, and by that means add to the value of the remainder, and as the value increased, the iron, brick and stone would be substituted for lumber, and in this simple manner the lumber supply would be preserved a far greater length of time. If they desire to perpetuate the supply of timber for any reason, they should also assist Canada in holding a reserve, and not open a door that will lead to its rapid destruction. I do not regard the committee as philanthropists, and when I know they have endorsed and present to this meeting

a report, and state as facts matters of which they have little if any personal knowledge, I can only believe that, knowing that the class of merchants they represent are in a majority in Chicago, they have allowed their supposed personal interest to place them on record as hostile to the interests of lumber manufacturers, with whom they cannot successfully compete.

But, Mr. President, if numbers and capital are to decide the future of the lumber business of the West, I am prepared to meet it squarely and on its merits, and will abide the result, and should this meeting, after due deliberation, adopt this report, it remains for the manufacturer to call upon the seven lumber Exchanges of the west to join the minority of this meeting in bringing the question before the tariff commission.

If this meeting by its vote to-day shall adopt the report now before it without amendment, I will gladly turn the majority over to the tender mercies of the manufacturers of Michigan, who, from past experience, are fast learning to protect their interest, and whose increasing capital, gained by their enterprise and improved business methods, has virtually placed them where, if they cannot approve the action of this meeting they need not fear those who have assailed their business with no hope of benefit.

I will pass the question of the extent of the Canadian timber supply by simply stating that if the amount equals the supply of the United States, very little of it can be transported to the markets of the West from its distant location, and evidence of this is the small quantity received at western ports, when the markets are so favourable. The product of the mills near Georgian bay, and that of the mills located on the north shore of Lake Superior, finds a better market in Winnipeg and Pembina at present, and will continue large shippers to that timberless country, and the lumber seaward from Niagara cannot supply western ports under any tariff, no matter how favorable.

I have already occupied too much time, but before ending my protest I desire to suggest changes that are likely to occur in the lumber trade of Chicago should the plan suggested in the report be adopted; that is, if Chicago remained an important lumber point:

First.—I have noticed that in cities where Canada lumber is freely consigned, the class of merchants known as lumber dealers are not required, as the thrifty sons of the Dominion have usually carried their lumber, even in American ports, with the cheap money of the banks of Montreal and Toronto, and in Troy and Albany they allow their lumber to blacken with age before sacrificing it. They do not rush lumber to distant markets beyond their ability to carry and hold for favorable sales. The business is conducted by firms of long standing, and companies of large means, that are accustomed to consign to the markets of Great Britian, and sell on six months' time, and renew the paper, if desired, at four to six months more, at 4 per cent. interest, and consider that good business. A cargo of boards was consigned to Messrs. Loomis & Ludington, in this city, by Messrs. Gilmour & Co., of Quebec, in 1857, and many present will recall the fact that those boards were actually held on shipper's account until 1862, when they were sold at a profit.

The favorable terms upon which the crown timber limits are sold, allow the lumber manufacturers a free use of their large capital to carry lumber after its manufacture, if necessary, to properly market the product of their mills. As this new element that the committee desire to have enter the lumber business of the West to replace those now engaged here, have no docks or local interest in Chicago, they would naturally seek American markets and ports more accessible to them, and where a saving of 50 cents to 75 cents per thousand feet can be made in handling the lumber they consign to western markets. At this time lumber can be landed and sold in Milwaukee, Racine, Michigan City, Toledo and Sandusky, at fully 50 cents per thousand less than in Chicago, and the trade of the entire west can be supplied from any of these ports at precisely Chicago railway rates. The Milwaukee & St. Paul and the Chicago & Northwestern lines make Chicago rates for for Milwaukee, and the Wabash system will ship lumber from Lake Erie ports to any western point on competing lines at Chicago rates. Lake freight is less from Canada to any of these ports than to Chicago, and I cannot see what will prevent the rival markets getting the majority of this Canada lumber that the committee seems to desire so much for the cheap homes, barns, etc. Or, if the vast amount of timber the committee state exists in Canada, which they give in the following language, but which I cannot believe:

"Aside from the supply in Wisconsin, Michigan and Minnesota, which the census commissioner fix at 81,000,000,000 feet, in the Dominion of Canada there exists a quantity equal, according to the opinion of many experts, to that remaining in the United States."

If this timber exists there must be some central point in this vast aggregation, that will warrant the railway magnates who control the vast railway system of the United States, to build connecting lines to this timber and transfer the Chicago lumber market and its expensive surroundings bodily to Canada, which would be both possible and probable. They certainly will need no Chicago lumbermen there, nor the army of men Chicago lumbermen employ, and pay millions of dollars annually to conduct the lumber business of this city.

Canadians hold vessels cheaply and would employ no American vessels, if they are to divide the American lumber business in the future, and fully one-half of the present tonnage of American lumbermen must seek other employment, or turn the sailors to other pursuits. No new mills will be required in the United States, and the surplus capital of lumber manufacturers can take the place of the present class of dealers, or divide the field with them. Manufacturers will then have sufficient capital to yard and distribute all the lumber manufactured in the western states. I see more possibility of loss to the present class known as dealers, than to any other, and am willing to take any chances with the manufacturer, as a competitor with Canada.

In conclusion, Mr. President, I will again state that I can see no good result as likely to come to any class of Americans by any proposed change in the tariff on lumber, not even to the consumers, who are really the most interested. Certainly no action should be taken to remove the present duty while the tax remains on lumber shipped from the United States into the British possessions, and that when any change is made in the present duty on Canadian lumber all duties on merchandise consumed by lumbermen and their employes should be modified in the same degree.

I am willing to trust to the fairness of the lumbermen of Chicago present at this meeting, if they will carefully weigh the question now before them. I appeal to their sense of right; their experience in the past and the success under the present order of business; and I cannot believe that they will vote to commit this meeting to any policy that does not promise lumber as cheap as it is now supplied, but openly claims that the Canadian product will cost more landed at western ports. I thank you gentlemen for your attention."

When he had finished the report, he moved that the majority report be laid on the table, and called for the ayes and noes.

A. A. Carpenter seconded the motion, and supported it by a few remarks.

After a long and vehement discussion the motion to lay the anti-tariff report of the majority on the table was carried.

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A discovery has recently been made by which wood, saw-dust, cotton-waste, paper pulp and other fibrous matter can be converted into a material which is impervious to water and acids, is easily moulded into any conceivable or desired shape, and which can afterwards be worked or cut to suit convenience, and which will be a perfect non-conductor of electricity, and hence exactly adapted for battery cells, insulators, supports for electric light leads and telephone work. The late heavy demand for a cheap insulating material has induced the discovery, and it is not improbable that the new material will completely supersede gutta-purcha and the other material at present in use.—*Lumberman's Gazette.*

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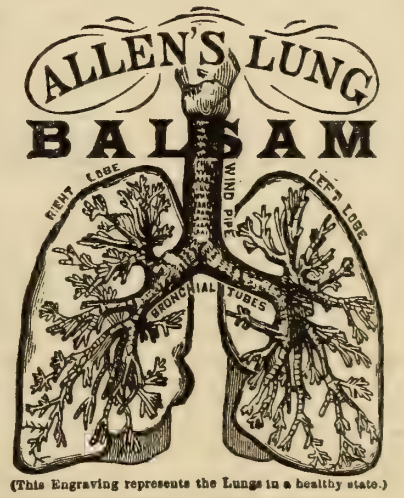

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LUMBERMAN

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PETERBOROUGH, Ont. NOV. 1, 1882.

MR. O. Latour, has sold in Quebec his entire output of timber, averaging about 50 feet in length, for a sum in the neighborhood of $90,000.

BESIDES pine lumber, shingle and lath shipped from Manistee, Mich., this season, 195,000 feet of elm lumber, 1,925,000 feet of timber and 2,148 sawdust bales have been shipped.

ABOUT a fortnight ago 10 car loads of portable houses were shipped from Ottawa to the Northwest for the use of the mounted police. Ten more carloads are now ready for shipment.

THE Wisconsin lumbermen are making preparations for a big winter's work, and standing pine is changing hands at high prices. A few days since 2,500,000 feet changed hands at Neillsville, the consideration being $12,200. The haul is for miles. Good No. 1 logs are worth $9.50, and No. 2 $7.50.

THE *Canadian Manufacturer* says:—It does not seem to be a bad thing for Canada to hear from Ottawa that, owing to the good wages paid to lumber hands this season in Canada, the usual number have not gone to the Western States and Michigan: lumbermen there, in consequence, are very shorthanded.

THE Northwestern Lumber Company at Eau Claire, Wis., will add a sash, door and blind factory to the planing-mill now being built. Plans for the machinery are now being made by Benjamin, Fisher & Mallery, of this city, and the planing-mill will be ready for operations by next March, the sash and door department to be completed later.

A NEW BRUNSWICK correspondent complains that so much of the lumber trade in that Province is exported in the rudest form of sawed stuff, whereas it might just as well be manufactured into forms for which the price obtained would be very much more. A little enterprise and the necessary machinery would do it; and we should be glad to hear of planers and moulders being more extensively used on lumber for export.

THE Kingston *Whig* says:—Messrs. Rathbun & Sons, of Deseronto, having already 300 men engaged in cutting timber. Some are located in Dunganon and Faraday townships, others in Tudor and Grimsthrope. There are two shanties on the Napanee river, and another force will be sent to the Salmon river in a few days. Jobbers are also beginning operations.

AT Edmonton, situated at the head of navigation, on the North Saskatchewan, Northwest Territory, there are two steam saw and planing mills, and a mill on Sturgeon river, in the vicinity. There is no pine in the section, but spruce grows to a large size, and plenty can be had from the Beaver Hills. There are two steam saw-mills at Prince Albert, another important place on the river, that promises to be the largest town in the section.

THE latest advices from the Black river, Wis., are to the effect that there is a good stage of water in the stream and all its tributaries, and that the logs are driven out cleaner than they have been for the last 16 years. The amount that will reach the boom is estimated at from 20,000.000 to 35,000,000 feet. The boom at La Crosse will be opened and all the logs rafted out if the weather will permit, It is now expected that the mills that have shut down will start up again this season.

THE New Brunswick Land & Lumber Company recently held a meeting at Woodstock, N. B., and elected the following directors for the current year: Lord Elphinstone, Hon. Isaac Burpee, Hon. D. A. Smith, Hon. Sir John Macneill, George Stephen, Samuel Thorne, J. K. Tod, O. H. Northcote and R. E. Burpee. At a subsequent meeting of the directors, Lord Elphinstone was elected president, Hon. Isaac Burpee, vice-president, and W. T. Whitehead, secretary-treasurer.

THE Ottawa *Citizen* says:—Mr. C. Logan, who, in connection with J. D. O'Doherty, has been carrying on the manufacture of portable houses, had an interview on Saturday with Mr. Darley Bentley, Consul-Governor in Canada for Brazil, who was in Ottawa with a view to seeing what could be done in the way of establishing a trade between Canada and that place in these articles. Messrs. Logan & O'Doherty have for weeks past been at work for the Government on portable barracks and stables for the North-west mounted police, sufficient to accommodate 300 men and horses. They have lately been shipping them off at the rate of ten car loads per week, and will continue at that rate until the whole order is filled.

THE *Timber Trades Journal* says:—Concerning spruce deals it would appear that the conditions which caused the recent advances in value remain in full force. It is quite possible that the limit of the advance has not yet been reached. High freight and insurance rates, together with the difficulty in securing shiproom even at the stiff rates ruling, the comparative scarcity of stock at the west coast ports, and the fact that the stocks inland are being rapidly reduced, are all existing features which point to the likelihood of prices being still higher. If the present conditions affecting spruce deals remain in force but a short time longer, we shall, in all probability, see a decided change in the market occur. The course of trade at Liverpool during the next three or four weeks will be watched with much anxiety by all the large inland buyers of spruce, and our correspondents weekly report will doubtless be perused with no small degree of interest.

THE MURRAY CANAL.

WE beg to call attention to a letter from a correspondent on a very important subject, namely, the practicability of the new Murray Canal for drams of timber. The short cut which the canal will afford, and the means of escape thereby presented from the dangers of rounding the coast in that neigborhood, will make it a public boon. But a great portion of this benefit will be needlessly sacrificed if bridges are permitted to be thrown across it of such a design as to prevent the passage of drams of timber. The work has not yet progressed too far for the required changes to be affected, and we feel convinced that an appeal to the Minister of Railways and Canals will be sufficient to secure the necessary relief. It should be remembered, however, that those interested would do well to make their voices heard before it is too late. It is far easier to prevent damage from being done than to remedy it after the mischief has become an accomplished fact.

MURRAY CANAL.

To the Editor of the Canada Lumberman.

MY DEAR SIR,—I have just recently ascertained that the Murray Canal, if constructed on the designs and specifications which are at present under contract, will not afford any facility for the passage of timber in lake drams. As this is a very large and important industry it only requires the attention of the Minister of Railways & Canals to be called to the subject, to have such alterations made in the designs of the five bridges which cross this canal, as will permit all the advantages of the canal being accessible to timber operators, whose rafts are to pass through Lake Ontario. For the information of those operators whose attention has not been called to the very great importance of this subject, it may be well to mention that four common road bridges and one railway bridge will cross the canal; and the present designs of the spans of these bridges would not permit of a dram of timber passing through them, the net width of the opening being 54 feet and with the timber guard booms, which is also part of the designs only 48 feet. The channel of the canal is enlarged at the bridges referred to, and it is thus apparent that a dram of timber 250 feet long, (which is the usual length) could not pass through, if of a greater width than about 35 feet. This precludes the possibility of the canal being used for timber purposes. A petition is being drawn out to be presented to the Minister of Railways & Canals asking his favorable consideration for such a change in the designs as will accommodate the timber trade, and it is to be hoped that the different operators will give their assistance in seeing that this matter receives that attention which it deserves.

Yours truly,
BOARD PINE.

NATIVE FORESTS.

While there is much said and written in regard to forest tree cultivation, we find very little attention paid to the preservation of native forests. In the timber sections we have been too busy trying to get rid of the timber to think of any method of preservation. Yet in some sections that were formerly timbered there is now felt to be a scarcity of timber, particularly of that kind which is useful in manufactures. The only remedy mentioned is the planting of forest trees for this purpose, but this is a work that we are hardly prepared for in this state, and it is probable that only necessity will compel artificial planting. The time seems too long to wait for an investment of this kind to begin to pay, and there are very few who will undertake the work. At least very little as yet has been done in this line. At the Agricultural college an experimental arboretum of four acres has been growing a few years; and a farmer in Monroe county has this year set 1,500 black-walnut trees with a view to grow them for timber.

Would it not be well to study more closely the possibility of improving the timber lands that still remain. The woods still standing contain a vast amount of material which is susceptible of development in far less time than would be required for the planting and growth of new forests, the neglect of which furnishes a striking proof of the general ignorance of forest culture. The timber is ruthlessly cut from many places that are nearly useless for cultivation after, and would be worth far more for growing timber than for any other purpose, more beautiful to the eye and more profitable. In many instances the native woods have been so much neglected or so much injured as to be past redemption, yet there are still large areas of forests and smaller groves and wood-lots now yielding no revenue which might be developed into timber forests of very great value and at the same time yield an annual crop of firewood in the process.

Cut out the dead and least valued timber for firewood, preserve the small growing trees that are of the best varieties for timber. It will be necessary for the best care of the forest to keep stock from running in it, as they will totally destroy all small growth. In almost every tract of woodland may be found more or less of trees of the best varieties for timber mingled with a great variety that are worthless or only fit for fuel. In many cases they have been neglected and cannot be improved, but in most cases intelligent work in thinning and pruning will be followed by profitable result.—*Detroit Post.*

SWEDEN.

The Stockholm correspondent of the *Timber Trades Journal* says:—The vanguard of the autumn fleet has now arrived, and commenced loading at the ports in the north of Sweden under most favorable atmospheric conditions. The dearth of sailing tonnage under 150 standards still continues, and business for the year's shipment may therefore be considered as closed.

The statistics of shipments from Sweden up to the end of August having now been published, we can form a pretty shrewd idea as to whether my prognostications earlier in the season of an unprecedented heavy export this year are likely to be realized or not. The figures for the first eight months of this year and last year are as follows, viz:—

	1882.	1881.
Sawn and planed wood..	475,816	330,685 stds.
Square and partially square timber..	11,287,313	7,946,325 c. ft

These totals bear out all I have written this season, not only respecting the probable export, but also the extent of the production. One would imagine that all saw mill owners were running a race as to which one would have his wood cleared out first, so suicidal is the present enormous production for prices. Notwithstanding an all-round consumption larger than ever before, and an export commensurate with this consumption, we are staggering under heavy stocks at the close of the shipping season.

Forests and Streams.

A French writer tells of two exactly similar pieces of land, one cleared and the other wooded, where the wooded piece yielded ten times as much water as the open, and besides that the open piece had a very irregular flow, while the woodland yielded an even regular supply. Still another fact is given, this time relating to America. A stream, which for years and years without failing, had supplied several mills with power, finally gave out. It not only failed to fill the ponds but it actually dried up. An investigation showed that the woods through which its course flowed had been cut down. Subsequently these woods were allowed to grow up again, and for the past ten years in spite of droughts and other troubles, the stream has flowed without any interruption.

Sales of English Timber.

On the 6th of Oct. Messrs. Shouler, Sons & Walker sold by auction a quantity of trees, poles, and arms, comprising oak, elm, ash, chestnut, spruce, etc., the property of his Grace the Duke of Rutland. The small better quality elm made from 8d. to 10d. per foot; the best timber from 1s. to 1s. 4d.; oak, middle size and quality, 1s. to 1s. 8d.; one large tree containing 120 feet, fetched £27 10s.; Spanish chestnut, of middle size, 1s. to 1s. 4d.; larch, 1s.; poplar, 6d. to 1s.; spruce fir, 6d. to 8d.: elm and other grains fetched 4d. to 6d. per foot. An evident demand for large oak of first quality was noticeable. A large and respectable company attended.

NEVER NEGLECT IT.—If you suffer from a cough, never neglect it; it is no trifling matter, and might lead to a speedily fatal disease of the lungs. Hagyard's Pectoral Balsam will allay all irritation of the mucous membrane by its soothing, healing power; it cures bronchitis, asthma and all throat and lung complaints.

BEST OF ALL.—Our rigorous and changeable climate and our mode of life induces frequent colds that often lead to severe coughs, bronchitis and other lung troubles that are liable to end in consumption. The best and most pleasant remedy for these difficulties is Hagyard's Pectoral Balsam, to be obtained of any druggist.

BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of trade, for the month of Sept., and for the first nine months of the year :—

MONTH ENDED 31ST SEPT., 1882.

	Quantity. Loads.	Value. £.
Timber (Hewn).		
Russia	49,476	102,888
Sweden and Norway	99,013	166,236
Germany	48,653	133,006
United States	11,548	40,998
British India	92	932
British North America	25,492	125,710
Other Countries	30,506	42,424
Total	264,777	612,194
Timber (Sawn or Split, Planed or Dressed).		
Russia	248,529	638,741
Sweden and Norway	248,423	591,691
British North America	73,792	193,377
Other Countries	24,066	75,949
Total	594,810	1,499,758
Staves, (all sizes)	18,489	83,493
Mahogany (tons)	3,457	34,067
Total of Hewn and Sawn	859,587	2,111,952

NINE MONTHS ENDED 31ST SEPT., 1882.

Timber (Hewn).		
Russia	227,702	475,393
Sweden and Norway	494,108	773,298
Germany	224,992	656,875
United States	140,648	656,375
British India	30,664	385,182
British North America	151,187	715,129
Other Countries	266,982	344,089
Total	1,536,283	3,827,711
Timber (Sawn or Split, Planed or Dressed).		
Russia	920,110	2,320,281
Sweden and Norway	1,271,281	3,219,225
British North America	626,543	1,630,551
Other Countries	289,486	923,941
Total	3,107,419	8,093,998
Staves (all sizes)	94,967	474,447
Mahogany (tons)	21,675	205,280
Total of Hewn and Sawn	4,643,702	11,921,709

CLOSE OF NAVIGATION.

The *Lumberman's Gazette* of Bay City, Mich., says :—The season of navigation is rapidly drawing to a close, and shippers are exhibiting considerable anxiety to move what lumber they have yet to go forward, as they are becoming considerably nervous about freights taking an upward turn. A prominent shipper remarked in the presence of the writer that he had a few million yet to be put afloat, but was fearful he would be unable to do so before the advance of freights took place. If the vessel men, however, exhibit the same lack of shrewdness that has characterized them during the entire season thus far, there is little probability that they will avail themselves of the opportunities which may present themselves. The demand for vessels on the part of the men who must move their lumber which is contracted for, may possibly accomplish for the vessel owners what they themselves have been unable to accomplish during the entire season, which has been a very unprofitable one thus far.

Old Timber.

The so-called submarine forest at Hastings is a portion of the wood that once surrounded the Priory of Holy Trinity, founded in the time of Richard I. The Priory, being built on the low ground, was exposed to those inundations of the sea which have so ravaged the coast Eussex, and which eventually drove the monks to establish themselves at a new Priory further inland. The wood surrounding the Priory was part of the vast forest of Anderida, which must in Richard's day have come close up to Hastings. At low water, when the "forest" is left dry, and exposed to view, it is found to consist of a black looking deposit in which timber of a large size is found embedded. Through this the course of a thick hedge has been distinctly traced, and hazel nuts are occasionally found there, with their shells in a most perfect state. This subterranean timber is sound enough to be capable of being worked up into tinkets, which form ready articles of sale.—*The Oracle.*

OMEMEE.

KINCAID'S MILL BURNED.—On the 26th Oct. about 2.30 a.m. Mr. John Kincaid's steam saw and shingle mills were discovered to be on fire. The flames were fanned by a strong north west wind, so that nothing could be done towards saving the buildings, which, with all their contents, were completely destroyed in a very short time. Mr. Kincaid's loss is about $6,500, which is only partly covered by $1,400 insurance. A number of men are thrown out of employment. It is supposed the fire was the work of an incendiary, as when first seen it was at the north end of the buildings, that is, the opposite end to where the engine-room was situated. Two or three buildings were set on fire by the falling embers, but fortunately were noticed in time and no damage ensued.

Tree Planting.

In the season of 1881-2 more than 3,000,000 trees were planted in Great Britain, out of which number Scotland claims about 2,000,000, England 600,000, Ireland 300,000, and Wales 40,000,

Consumption Cured.

An old physician, retired from active practice having had placed in his hands by an East Indiana Missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung affections, also positive and radical cure for General Debility and all nervous complaints, after having thoroughly tested its wonderful curative powers in thousands of cases, feels it is his duty to make it known to his fellows. The recipe, with full particulars, directions for preparation and use, and all necessary advice and instructions for successful treatment at your own home, will be received by you by return mail, free of charge, by addressing with stamp or stamped self addressed envelope to

DR. J. C. RAYMOND,
164 Washington Street, Brooklyn, N. Y.

A Reliable Witness.

Mr. Whyte, late proprietor of the Mansion Saloon, King street, Toronto, writes as follows about Dr. Carson's Stomach and Constipation Bitters: "I have used Dr Carson's Stomach Bitters for nearly two years, and I believe it to be the best medicine in the world. I would not be without it for anything. I have induced scores of people to try it, and when taken according to directions, I have never known it to fail. I call the Bitters, "The Doctor." It has certainly been my family doctor even since I first used it, and will continue to be as long as it acts the same as hitherto. I strongly advise all my friends and the public generally, who suffer from any affections of the Stomach, Bowels, Liver and Blood, such as Dyspepsia, Indigestion, Liver Complaint, Headache, Dizziness. Costiveness, Impurities of the blood, Rheumatism, Neuralgia, etc., to buy a bottle of 'The Doctor,' and I am certain that not one will regret having done so. I do not think there is any medicine in the whole world equal to Dr. Carson's Stomach and Constipation Bitters."

[Sg,] JAS. WHYTE,

Sold in large Bottles at 50 cents at J. D. Tully, druggist.

MRS. B. M. GIFFORD. of Port Rowan, was for many years a sufferer with liver complaint and a serious complication of diseases. In a recent letter she says she has only taken two bottles of Burdock Blood Bitters, and has nearly recovered her health, and authorizes us to use her name in advertising to suffering humanity.

Wanted.

A PARTNER that understands the SAW MILLING BUSINESS, with capital. For information address JAMES B. DICKSON, Pembroke, Ont. 21L6

WANTED.

BLACK ASH PLANK

Sound, Square Edged and largely clear of knots; 3x8 to 18 inches wide, 10 to 16 feet lengths. Can use it green. Quote for 3 to 5 cars per month, delivered at Boston, Mass.

ROBERT C. LOWRY,
Wholesale Lumber,
21L4 55 Pine Street, New York.

CURRIE BOILER WORKS

ESTABLISHED 1852

MANUFACTURERS OF

STEAM BOILERS.

NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTIN & Co.

Esplanade, Foot of Frederick Street, TORONTO.

1L15

A Syndicate of Limit Holders
Represented by the Undersigned, offers

FOR SALE
On the Upper Ottawa,

600 Square Miles Virgin Forest of Pine, comprising 13 Licenses, nearly all Front Limits, on the main stream of the River Ottawa itself, on reasonable terms.

The Proprietors will sell either the whole, or, if preferred, a part interest to Capitalists who will furnish the requisite means to work this Valuable Property on an extensive scale.

The extension of the Canadian Pacific Railway westward towards Manitoba, the establishment of steamboats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subsiding streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

☞ Full particulars will be promptly sent on application to

E. J. CHARLTON,
17L6 QUEBEC, P. O.

AUCTION SALE
OF VALUABLE

TIMBER LIMITS,

Situated on the Rivers Ottawa, Gatineau and Jean de Terre.

The following limits, if not previously disposed of, will be offered for Sale at PUBLIC AUCTION,

At the RUSSELL HOUSE, OTTAWA, on Thursday, Nov. 30th next,

AT TWO O'CLOCK P. M.

				Miles.
River Gatineau,—License Number		176	for 1881-2—	46¼
do	do	177	do	50
do	do	178	do	50
do	do	179	do	50
do	do	180	do	50
do	do	181	do	50
do and Ottawa	do	182	do	28¾
do and Jean de Terre		183	do	48
do	do	184	do	46
do	do	185	do	42
do	do	186	do	50
do	do	187	do	50
do	do	188	do	18
do	do	189	do	46 9-10
do	do	190	do	50
do	do	191	do	50
do	do	192	do	50
do	do	193	do	31½
do	do	194	do	50
do	do	195	do	39 6-10
do	do	196	do	21
do	do	197	do	50

Terms and conditions made known at time of Sale. Further information can be obtained by application to R. C. W. MacCuaig, Auctioneer, or Crown Timber Offices, Ottawa.

R. C. W. MacCUAIG,
Auctioneer and Real Estate Agent,
59 Sparks Street.
Ottawa, 1st September, 1882. 4L13

A. L. UNDERWOOD

WHOLESALE DEALER IN

White Pine, Basswood & Hardwood,

82 King Street East,
TORONTO, ONT.

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S. S. MUTTON & Co.,

Wholesale Lumber Dealers

TORONTO.

We have for Sale a large quantity of PINE, OAK WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.

☞P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 1utf

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MANUFACTURERS OF

Leather Belting !

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Patent Lace Leather.

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Commission
Lumber Dealers,
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Shipping and General Agents
PORT HOPE.

1utf

OTTAWA.

From our own Correspondent.

Oct. 10.—Saw mills hereabouts are running regularly yet, and will continue until the last moment, The cutting season this year has been of the longest duration for many years past. Although no correct estimate can be made of the cut of the year before the mills close, it can safely be asserted that the number of feet will be far greater than

THE CUT OF 1881,

and in fact greater than any previous year. The yards now present a fresh appearance all being filled with green timber, the old stock having been shipped early in the spring. Large quantities of fresh cut lumber are being daily shipped, the demand being so lively that no time can be given the stock to dry in the yards. Boats are enabled to take paying loads. The

HEIGHT OF THE WATER

being favourable. The special train on the C. P. R. leaving the city twice a week for the ac commodation of lumbermen is crowded to the utmost every trip. Besides this a great many are sent up the river to the shanties on the regular trains. The lumbermen and jobbers are preparing for a heavy winter's work. No complaints are heard of a

SCARCITY OF SHANTY HANDS,

but all who come along are promptly engaged. This year nothing is heard of the exodus of lumberers to the Michigan shanties, which occurred during the fall of the past few years. The wages paid, by the Canadian firms, given in the last correspondence, are as high, if not higher, than those paid

ACROSS THE BORDER.

More logs will be taken out this winter than usual. It is doubtful if a great deal will be done with square timber, as the Quebec market the past while has not been as good as expected. There is no very great demand for the square timber. This may, however, be the periodical stagnation which generally takes place. Not many

SALES OF RAFTS

have been reported lately. There is one more raft coming down the Ottawa, which will be the last of the season. The timber slides at the Chaudiere here are to undergo extensive repairs and improvements after the drive is over. A large force of men will be employed during the winter doing the work.

Mr. E. B. Eddy, the well-known lumberman of Hull, who has been for some time in a dangerous condition, suffering from a tumor in the stomach, is recovering slowly. Mr. Eddy's friends, who are legions, earnestly hope that his recovery will be rapid and sure.

MODERN LUMBERING.

The Detroit *Marine News* says :—In 1868 Moore and Alger commenced lumbering in northern Michigan, and were succeeded by Alger & Co. in 1874, the firm at that time being composed of General R. A. Alger, M. S. Smith and George W. Bissell, who continued until 1879, when R. K. Hawley & Co., of Baltimore, Md., purchased the interests of Mr. Bissell, and soon after the firm incorporated as R. Alger & Co., with a capital of $1,000,000. In 1881 the capital stock of the company was increased to $1,500,000, and the company became known as Alger, Smith & Co., with officers as follows :—R. A. Alger, president ; R. K. Hawley, vice-president ; M. S. Smith, treasurer ; J. C. McCaul, secretary, and J. Millen, superintendent at Black River, Mich., the stock being all taken by the gentlemen named. The office and general business of the company is carried on at Detroit, Mich., and the works are at Black River, Alcona county, Mich., where they own 50,000 acres of land and have 600,000,000 feet of pine timber standing on these lands. In addition to this very large amount of timber the company own 50,000,000 feet of standing pine on the upper Peninsula of Michigan. It may be said without question that Alger, Smith & Co. are the largest producers of pine timber, spars and masts in the world. The pine timber of Mich. is being cut very rapidly, and it will be a matter of only a few years ere the supply is exhausted, especially that class of timber suitable for timber, spars and masts, and it is generally conceded that this company own and produce the best of these timbers. Masts and spars from their works supply to a large extent the New York, Boston and other seaport markets.

In 1876, in order to increase the production, it was found necessary to build a railroad to these lands, and now the company has 25 miles of railroad, three and one-half feet gauge, laid with steel rails, with four locomotives (of which the largest one, the General Sheridan, weighs 65,000 pounds) and 100 cars.

The cutting and skidding is of course the same as at any lumbering camp. The trees as soon as fallen are stripped of their bark and skidded to and loaded on the cars at once. The work is done very rapidly, the logs being put into the water and rafted down the same day.

These rafts are put in tow of one of the company's steam barges or tugs, and delivered at Tonawanda, Buffalo, Cleveland, Sandusky, Toledo, Detroit, and Port Huron. Quite recently Messrs. Alger, Smith & Co. had four rafts on Lake Huron at one time, the four containing 8,000,000 feet of timber. The large number of chains necessary to the business would surprise many, and it might incidentally be mentioned that the company have $40,000 invested in these rafting chains alone, and over $110,000 in steam barges and tugs used in towing timber. They have just built a large barge, the Manistique, which is used for the double purpose of towing and carrying freight, an unusual thing in the business.

The annual product is 70,000,000 feet board measure of long timber and 10,000,000 feet short logs.

The company will commence in 1883 the manufacture of lumber at Manistique, Mich., in addition to their business of long timber, on a large scale.

This company employs 600 men at work at Black River, and the business of getting out rafting timber is managed by their very efficient Superintendent, Mr. John Millen, who is also a stockholder in the company.

LUMBER OUTLOOK.

The *Lumberman's Gazette* says :—The principal reason that the expected October rush did not put in an appearance as anticipated, in the lumber centres of the country, may be accounted for from the fact that the low prices of cereals and other farm products has inclined the farmer to hold on to his grain, and consequently defer any projected improvements which he may have had in view. This tardiness on the part of the principal customers of the western retail dealers has disinclined the latter to stocking up very heavily until they can see what is to be the result. This tardiness, of course, affects the manufacturing districts and large lumbering centres, and although there may be a steady call at these points to supply actual present demands, the rush to stock up in the retail yards in the country in anticipation of future trade is delayed for the present at least. This has inclined some people to the opinion that the lumber business thoughout the country is on the wane. The facts, however, do not warrant the opinion. Although the anticipated rush has not put in an appearance, there has been a steady inquiry, not only on the Saginaw river, but at the other heavy manufacturing points, as well as at Chicago. That this demand will be constant there is no room for doubt, as it is a demand to supply actual necessities. The crops have been unusually heavy, and the grain and other products are in the country, and so soon as the holders thereof conclude to dispose of the same and move them forward, the anticipated improvements and consequent increased demand for lumber will make its appearance. It is possible, and even probable that these improvements will be delayed until next spring, and at that time a boom in the lumber trade may reasonably be expected, as we shall then, as stated by us last week, reap the benefit of the success and prosperity of the agriculturalist the present season. Reports from all over the country show that the prices for lumber remain firm, which is an indication of a steady and constant demand. Had the price of farm products remained high, there would undoubtedly have been an almost insatiable call for lumber this month. The outlook, however, is favourable for a brisk opening and a heavy demand next spring, and unless some unforseen obstacle intervenes a boom in the lumber business at the commencement of another season may reasonably be anticipated, with a steady demand in the meantime.

VALUE OF TIMBER.

The market value of timber lands in the lake region has doubled since the publication of the census bulletin maps, in which the startling fact was set forth that the white pine supply of the country would be completely exhausted in a dozen years. This fact would seem to indicate not only that the accuracy of these statistics are accepted without question, but also that the most provident lumber dealers had failed to comprehend how swiftly the devastation of the pine forests was going on. No other wood on this continent is so easily shaped by the tool of the workman to such varied use. The redwood of California approaches it more nearly in quality than any other, being a light, durable and fine-grained wood which works smoothly and splits true. But California is a long way from the eastern markets, and in a recent bulletin the amount of accessible redwood standing in the census year along the coast range from Oregon to Santa Cruz is estimated at less than 26,000,000,000 feet board measure. At the same date 29,000,000,000 feet of merchantable white pine was standing in the lower peninsula of Michigan alone, so that the relief we can hope for from the Pacific coast is comparatively slight. It should be added that California enterprise has not been behind the older states in devising means for obliterating their timber trees. They have ever been more wasteful in their methods of sawing and working.

It is not uncommon to see a redwood tree containing about 15,000 or more of lumber left to decay on the ground, or to feed the next fire that sweeps through the forest, simply because a slight twist in the grain prevents it from splitting readily and squarely into railway ties. Animals which gnaw and browse are turned loose to help devouring fires sweep away not only the timber but the soil itself, for in no other country do the conditions which produce destructive torrents more generally prevail. Here are mountains, high, steep, and covered yearly with unknown depths of snow. To strip their flanks of protecting trees and shrubs is to encourage floods to wash every particle of loose earth into the valleys and scour the rocky skeltons of these long ranges bare.—*New York Tribune.*

THE INFUENCE OF RAILROADS.

The vast and rapidly increasing extent of the American railway system, which at the present moment can scarcely be less than 100,000 miles, has a most important bearing upon the question of our forest supplies. This effect is not limited to the vast consumption that they occasion in supplying ties and other materials for the new constructions and renewals that are constantly going on. These roads are everywhere penetrating the timber regions of the country, many of them being built for the express purpose of getting out the timber that was before inaccessible by the old methods of floating upon the rivers or hauling in winter by teams. It is but a comparatively recent period since this feature in lumbering was introduced, and its direct and speedy effect is to hasten the exhaustion of these supplies, that were going off too fast for the needs of the present and of the future. The obvious effects of this will be to keep up the supply at the mills so long as there are forests from whence it can be obtained. They will distribute the manufactured lumber over a wider area and to greater distances to meet the wants of regions that have already used up their own forest resources, and they will doubtless extend for a little while the time of apparent "abundance" and of "inexhaustible supply." But while they are doing this, they will be every day equalizing the ruin that must inevitably follow this vast and rapidly increasing destruction, that will happen to the country in the near future, unless seasonable and adequate measures are taken to meet these future wants by extensive and judicious planting, and by effectual measures for economising our remaining supplies. We shall be soon admonished of this necessity by the rapidly gaining prices of our timber ; but it is not wise to wait for this extremity until it is directly upon us. We should anticipate these wants ; for it takes many years for a seedling sprout to become a tree fit for timber and boards. The duty before us is a most important one, and it presents two principal points for consideration, namely : first, as to how far and in what manner the General Government can withdraw its remaining timber lands from entry under existing laws and place them under regulations calculated to secure the greatest benefit to the present in the use of timber that is now fully mature, and that shall at the same time have due regard for the requirements of the future ; secondly, as to how we may most thoroughly impress upon the owners of land the importance of planting, and as to how far and in what manner it is the duty of Congress to encourage this object. The first of these is a complex question, and one that must be carefully considered in all its bearings before we can adopt a definite policy concerning it. Upon inquiry of the author of this report, I learn that he has given the subject much attention, and that suggestions are made as to the measures that may be adopted. Until the report is before us no opinion can be expressed as to the feasibility of these plans, and they may require a further study before action can be had upon the subject. There can be no doubt but that property of this kind under the care of persons who have an interest in its protection, and the law for their support, would be better cared for than if exposed, as it now is, to the plunder of everybody. The second point is of greater importance, because it affects the whole country and applies everywhere alike to the owners of the land. We find in our country conditions of ownership that are in general very different from those that prevail in Europe. We have no lands belonging to the government scattered here and there all over the country, to be reserved for timber growth, and cared for by skilled foresters. Our towns, cities and villages own no lands for common usage ; our public institutions have no landed estates that need the special care of Government ; we have no great hereditary domains belonging to titled owners, and we have no privileged classes. Almost the whole of our lands, excepting what remain under the care of the General Land Office, belong to farmers in actual possession, under absolute titles that assure perpetual ownership. We cannot require them to plant trees, nor prevent them from cutting off their woodlands—at least not under the present state of public opinion ; and nothing but sad necessity alone could ever hereafter so change this opinion as to justify and support restrictive legislation upon this subject. We cannot dictate in this matter. We certainly can never plant woodlands upon private property at the public expense, unless in the exceptional and local instances where this becomes a public necessity for the protection of some other interest. It has been shown by long experience in Europe that timber can be grown with profit upon lands suitable for no other kind of use, and that by careful and intelligent management a permanent supply may be maintained. It has long since been found that nothing will so effectually restore fertility to worn-out lands as a crop of trees, with the accumulation of organic materials that is constantly forming under them from the air and the soil. It is also proved by the experience of every careful observer that groves of woodland afford protection to the surrounding fields in the cooling and equalizing influence in mitigating the extremes of heat and cold, and by a perceptible and often decided effect in preventing injuries from drought. They afford resting places for insectivorous birds, and thus promote the destruction of insects to the profit of our grain and fruits. They screen us against the hot and dry winds of summer and the sweeping and piercing storms of winter that are some times so severely felt, especially in the prairie regions of the West. There can be no doubt but that timber can be grown within the United States sufficient for all the wants of its own inhabitants, but we must learn to regulate these wants and to guard against waste. We must diligently study the methods of cultivation that lead to most profitable results, and the kinds of trees that produce the most thrifty growth and the most valuable products. In short, our first and

greatest duty is to impress upon the owners of the land that it is in their interest to devote a portion of their land to the planting of groves of trees. We should establish experiment stations for the careful study of the requirements and capabilities of soils and different kinds of trees, and we should publish the results of these observations in a form particularly calculated to impress the importance of these measures and to teach the plainest and simplest rules for securing their success. If we rightly read the signs of the times, public attention is already awakening upon this subject, and we should lead this question, and not wait to be driven by it, in whatever measures may appear necessary for the promotion of this object.—*Journal of Forestry.*

SPRUCE IN ENGLAND.

The London *Timber Trades Journal* of Sept. 30th, says:—The spruce market on the west coast practically remains unaltered. The strength of the market is reported to mainly lie in the fact that very little spruce has for some weeks been sent inland; consumers have therefore had to work almost entirely from stock. Some of the inland stocks are already said to be greatly reduced, and should any considerable arrivals shortly come forward, it is thought there will be plenty of demand for them. At the recent sale an unusual quantity of ends were offered, and, as will be seen, good prices were realized.

Spruce is a class of wood that is not likely to remain long unshipped, and with the wind up of the season it is possible we may have very little difference to record between the stocks of last year and this.

In England, as in this country, considerable whitewood is made into pulp for paper making. Redwood is not suitable for pulp, as it does not impart the proper color. The English pulp is made from the timber of Norway and Sweden.

The Duke of Athole has planted 2,000 acres of forest since the beginning of the year. Thus his grace repairs such accidents as that of the "Tay Bridge" gale, which uprooted 80,000 trees thoughout the wide possessions of the ducal forester.

The new main river dam on the Menominee, a few miles above Chalk Hills, Mich., has been completed, costing the boom company $15,000. It has six 11-foot gates, and on the first trial the full head was raised in nine hours, the flow being four miles back.

The *Timber Trades Journal* says:—One of the natural effects of wood being at high prices is that all sorts of experiments for procuring cheap timber are resorted to. Thus, now that spruce deals have so much advanced in value, we find Riga whitewood sleeper blocks are being freely dealt in at the west cost ports. It rarely indeed happens that whitewood of any description, or form of manufacture can be brought into competition with spruce. Nor are we inclined to believe at the present juncture that Riga white sleeper blocks at their relative market value compete in points of economy with spruce deals. Presuming, for instance, that the blocks can be so'd at 20s. per standard lower than spruce deals, it is yet difficult to believe that they cost less to the consumer.

A Minneapolis correspondent of the *Northwestern Lumberman* says:—The weather has been very dry of late, and logs scarce. Quite a number of the mills have shut down. The demand for lumber throughout the Northwest is unabated. Logs are selling in the Black river at from $2 to $3 per thousand higher than last year. J. L. Gates sold a couple of days ago 4,000,000 feet, banked on the upper Black, to B. B. Healy, of La Crosse, Wis., for $9.25. The same grade of logs sold last year for $6.50. In fact there but few logs for sale on the Black river. Chippewa lumbermen are offering logs, and claim they will cut the coming winter 1,000,000,000 feet. I think 200,000,000 feet will be put in on the Black. George H. Ray, agent for A. Cobbun, of Maine, has sold the Cobbun tract of pine land, on tne Eau Claire, to the Eau Claire Lumber Company, for $600,000.

Chips.

The Parry Sound Lumber Company's barges Lothair, Corisande and Van Straubanzee were all caught in Lake Huron, off Sandy Beach, in the storm which wrecked the Asia, but they weathered the gale, and reached Sarnia withont the loss of a board.

Statistics furnished to the tariff commission show that the entire lumber districts of the United States give employment to 90,000 persons in the mills and 135,000 in the forests, who earn $50,000,000 a year. In Michigan the men are employed 200 days in the year in the mills, and 140 in the forests, the average daily wages being from $2.05 to $2.10.

The *Lumberman's Gazette* says:—Minnesota lumbermen have hard work in finding enough oxen for the lumber camps, and they come high too. Prices range, in the country up north, where they are purchased, from $175 to $400, the latter figure being for a seven foot nine inch yoke. In Minneapolis the oxen would be worth from 20 to 30 per cent more.

Cobb & Mitchell's new logging railroad from Cadillac, Mich., to a point on section 7, Missaukee county, is four miles long. To reach the elevation where the camps are located at the eastern terminus of the road an ascent of about 200 feet to the mile is made. Active logging operations will soon begin, and it is anticipated that 14,000,000 feet of pine will be taken to the mill over this road. Camps are now being erected.

The *Lumberman's Gazette* says:—Three hundred million feet of logs embraces a large amount of money, and when they are not available it means just so much dead capital. It is now estimated that three hundred million feet of logs will be hung up this year on the Muskegon. The mills will probably get an early start next season, and if no labor difficulty presents itself, a heavy season's cut may be counted on, as the winter's logging will be fully up to the average, and the indications are that it will exceed those of former years.

The Buffalo *Lumber World* says:—Mountain forest fires in California did a great deal of damage during the past month. Large quantities of standing redwood were destroyed and houses, mills, etc., went up in smoke. Some time, owners of timber land will be awakened to the necessity of adopting adequate preventive measures against such wholesale destruction. Of course it would hardly be possible to entirely prevent the occasional occurrence of such conflagrations, but the majority of them result indirectly from the carelessness that is little less than criminal.

The *Monetary Times* of Oct. 6, says:—Spruce deals are in active demand in Quebec, according to advices of Monday which state that 300,000 Quebec Standard was sold in three days of last week. These were bought by R. R. Dobell & Co. and were the manufacture of Ross Ritchie's, Roche's, Atkinson's and Breakey's mills, the prices were; $38 to $40 for first quality, $27 to $29 for second quality, and $24 for third quality, with 30 per cent. oddments and 70 per cent. regulars. Other houses are expected to follow suit. Manufacturers are, however, adds the despatch, at an advance on foregoing quotations.

The Pembroke *Observer* of Sept. 29, says:—The steamer Pembroke took down a large tow of square timber last Saturday from Des Joachims, belonging to the Scotch Lumber Company managed by Allen Grant. It was not rafted up, being simply in a boom like saw logs. The timber was towed to the shore below lower town near the residence of Mr. John Bell, where it will be shipped on the railway to Quebec. A switch to facilitate this has been constructed from the main line of the C. P. R, close by. Several tows have yet to be brought down, there being altogether 11,000 pieces of timber. One raft, we believe will be rafted up and taken to Quebec by water, the unusual height of the water this season making this an easy possibility. It will be remembered that it was originally intended to have put this timber on the cars at Mackey's station—the point of shipment last year—but the high water permitted it to run over the Des Joachims Rapids all right and it was resolved to ship it from Pembroke instead.

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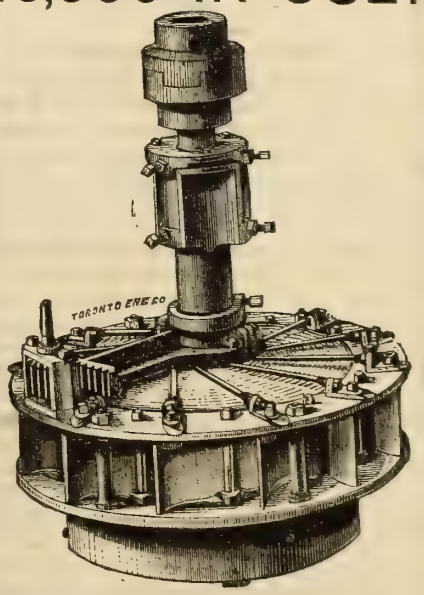

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Market Reports.

MONTREAL.

From our own Correspondent.

Oct. 25.—In the lumber trade there has been a fair demand for both soft and hard woods neither of which are in excessive supply just now, although arrivals are coming to hand freely as lumber dealers are anxious to fill their yards before the close of navigation. Birch especially is scarce while the demand for it is active. From Ottawa we learn that large quantities of lumber are moving to the United States. One firm there has shipped this season 1,000 car loads by the C. P. R., to Quebec, and that there is upwards of 2,000,000 feet of lumber in Quebec to be disposed of. Prices here are very steady and firm in the yards as follows :—

Pine, 1st quality, ₱ M	$35 00@40 00
Pine, 2nd " ₱ M	22 00@24 00
Pine, shipping culls, ₱ M	14 00@16 00
Pine, 4th quality deals, ₱ M	11 00@12 00
Pine, mill culls, ₱ M	10 00@12 00
Spruce, ₱ M	10 00@13 00
Hemlock, ₱ M	9 00@10 00
Ash, run of log culls out, ₱ M	20 00@25 00
Bass, " " ₱ M	17 00@20 00
Oak, ₱ M	40 00@50 00
Walnut ₱ M	60 00 100 00
Cherry, ₱ M	60 00@00 00
Butternut, ₱ M	35 00@40 00
Birch, ₱ M	20 00@25 00
Hard Maple, ₱ M	25 00@30 00
Lath, ₱ M	1 30@ 1 40
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M	2 50@ 0 00

SHIPMENTS.

Shipping has been going on briskly since the date of our last report, five vessels having cleared for Buenos Ayres, one for Montevideo, and one each for Glasgow and Liverpool. The last engagement of freights to the River Platte was at $10, which may be taken as the present rate. The shipments from this port since the 9th inst. were as follows: To Buenos Ayres, 1,220,025 ft.; to Montevideo, 292,594 ft.; to Glasgow, 152,460 ft. The total shipments to the River Platte since the opening of navigation till date was 19,440,679 ft., against 11,510,891 ft. for the same period of 1881, being an increase of 7,929,788 ft. This increase, it is expected, will yet be largely augmented, as there were only three clearances after the same date of 1881.

LIVERPOOL MARKETS.

Latest dates by mail report imports moderate with fair consumptive demand. Quebec pine has an upward tendency, spruce deals, the stock is only about one-half of what it was last year and on which there has been a sharp advance. The market is overstocked with pitch pine. The following are the Liverpool quotations for Canadian timber. Quebec square white pine, 1s. 7d. @ 2s. 5d. per ft.; do. waney board pine, 2s. 3d. @ 2s. 8d.; Quebec red pine, 1s. 3d. @ 1s. 8d.; Quebec oak 1st quality 2s. 10d. @ 3s. 1d.; do. 2nd quality, 2s. 6d. @ 2s. 9d. Deals, 1st quality Quebec pine, £21 @ £22 p. standard; do. 2nd quality £15 @ £16; do. 3rd quality £9 10s. @ £10 p. standard.

CORDWOOD.

The high price of cordwood checks the demand. Prices are steady and stocks are by no means heavy and from all appearances wood will only be brought in as it is required. There is no change to note on quotations and we quote ex cars and on the wharf.

Long Maple	$7 50
Short "	7 00
Long Birch	6 50
Short "	6 00
Long Beech	6 50
Short "	6 00
Tamarack	5 00

OTTAWA.

From our own Correspondent.

Oct. 23.—The saw mills here are begining to close down their night watches, two of them having already done so. About the middle of November the most of the saw mills will close down for the season. Great difficulty is experienced in securing sufficient men to operate them, the usual hands having mostly left for the woods. Eddy's mill has not been running very regularly of late owing partly to this fact, and also to shortage of logs. In reference to the latter, some trouble has arisen in connection with the Upper Ottawa Improvement Co. Two mill owners have complained that their logs are not sent down to their mill ponds by the company in sufficient quantities to keep the mills running regularly, while all the mills on the south shore are well supplied.

Large numbers of shantymen leave daily for the woods. They are pouring into the city by every train from Quebec Province and elsewhere, and all hands are engaged immediately, the demand for labour being almost unprecedented. Owners of shanties not a great distance inwards, have secured nearly all the men they require. Wages paid are very good, but falling slightly.

Quotations of sawn lumber have remained almost the same throughout the summer. They are as follows :—

1×12 inch, good stock, per M	$ 20 00
Shipping culls, per M	13 00
Good 1×10 inch stock, per M	18 00
Shipping culls 1×10, per M	12 00
Good inch sidings, per M	27 00
Good 1¼, 1½ and 2 inch sidings, per M	30 00
1 inch shipping culls siding, per M	10 00
1¼, 1½ and 2 inch shipping culls siding, per M	12 00
1½ and 2 inch good strips, per M	19 00
Culled strips, per M	7 00
Good shorts, per M	16 00
Culled shorts, per M	7 00
Lath 1½ inch, per M	1 25
" 1½ " "	1 30
Butternut lumber, board measure, per M	15 00

Shipping operations are not carried on to as great an extent as they might be, owing to a scarcity of boats, and rates are going up. $4.25 per thousand feet is paid to New York; $2.25 to Whitehall, and $3.50 to Troy.

No sales of limits are reported.

The shipments by rail from Pembroke direct to the Quebec market continues. The British Canadian Lumbering Company who were the first to ship their square timber in this manner, expect to send 1,000 car loads of lumber this season to Quebec.

Very few rafts are now being navigated down the Ottawa from the limits. A raft of 110 cribs owned by the British Canadian Lumber Company is at present running the Chats Lake, and will reach this city next week.

9,000,000 feet of square lumber have been sold on the Quebec market this season, and about 2,000,000 feet remain to be disposed of.

In the Supreme Court which opens Monday, the 24th, the famous case of McLaren *vs* Caldwell, will be again tried. A synopsis of the case will be found in the next number of the Canada Lumberman.

TORONTO.

From our own Correspondent.

Oct. 23.—Sales from the various yards here are now as brisk as could be desired, in fact all the dealers with whom I have come in contact seem perfectly satisfied with the present condition of the retail trade, and prices hold firm, at the docks the same may be said as of the retail trade. Vessels are hard to obtain, and rates have again advanced and now rule at $1.50 per M. to Oswego, and dock hands are receiving 25 cents per hour. The great difficulty in the way of rapid shipments is want of sufficient car accommodation and vessels to carry the lumber away; this scarcity of cars seems to exist on all the railroads leading into the city, and extending westward. There is now a large demand for lumber in western Ontario, but for want of sufficient rolling stock orders cannot be filled with any promptness. The N. & N. W. R. R. Company use all their efforts to supply customers with cars, but it is evident that in cases of emergency, like the present, they have not enough rolling stock to meet the demands made upon them.

Several sales of mill run lots have been made to American buyers since I last wrote you. Such sales are usually made with the express understanding that the delivery shall be made F O B vessel here and according to Canadian inspection, although we really have no rule of inspection here, when I state this I do so advisedly, but let me ask any who doubt my assertion suppose half a dozen inspectors are sent to inspect a mill run stock, will the inspection of those six men be alike, not at all, each one follows his own particular method, another puts on a pair of magnifying glasses in order to detect the slightest appearance of shakes, the next one passes over many shaky boards, but has a deadly enmity to rotten knots, and pitches all such out without mercy, and so it is with all the six, no standard of inspection being laid down to guide them each one follows his own particular bent, and the truth of the matter is mill men have a decided aversion to those two words, Albany inspection, and when times are good more especially they will not allow those two words to be inserted in the contract of sale and purchase, but insert instead the words *Canadian Inspection*, which simply means any inspection that may be agreed upon by the seller and inspector from time to time in the progress of the inspector's work as it goes on. Now, I maintain that it would be much better, and more satisfactory to all concerned, if a uniform rule for inspection was made so that buyer and seller would know exactly what they were buying and selling. If the sales were made in all cases by the manufacturer to the American dealer the case would be somewhat different, but in nine cases out of ten it goes through the hands of the middleman, and he finds it difficult to satisfy his customers with the inspection he has had to take from the manufacturer. Much the better way would be to buy and sell by grades according to a uniform standard of inspection, as by the present method many mill men receive for their stocks cut from an inferior class of logs within a small fraction of as much as another whose logs were much superior. This is often the case when times are good, owing to the practise of buying the stock before it is cut out, in other words, to greater or less extent, buying a pig in a bag, a homely proverb often quoted but no less true in this respect.

This difference in inspection is often observable on our local markets, a dealer will sell a car load of what he terms cut up plank, and on examination it proves to be mostly flooring quality and totally unfit for the purposes for which it was bought. I may in a future letter refer more fully to this matter and hope this letter may elicit some remarks from others on the subject.

Prices at the yards are as follows :—

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 21 ft	15 00
" " " 22 ft	15 50
" " " 24 ft	16 00
" " " 26 ft	17 00
" " " 28 ft	18 00
" " " 30 ft	20 00
" " " 32 ft	21 00
" " " 34 ft	22 50
" " " 36 ft	25 00
" " " 38 ft	30 00
" " " 40 to 44 ft	35 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks	18 00
Picks Am. inspection	27 00@30 00
Three uppers, Am. inspection	35 00@40 00

B. M.

1¼-inch flooring, dressed	32 00
1¼ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
¾ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	14 00
XXX sawn shingles, ₱ M	3 00
XX sawn shingles	2 00
Sawn Lath	2 25

HALIFAX, N. S.

The lumber business of the present year, since the opening of the season, has been of about the same proportion as that of 1881. The shipments to the United Kingdom and Europe by Halifax firms in the trade have been about equal to those of last season, and prices realized on the whole were about the same. Up to the present date some 97 vessels have been loaded at Halifax and lumber ports lying to the east and west of this by three city houses, T. L. Dewolf & Co., J. H. Mathers (for Francis Carville & Son, London G. B.) and Wm. Chisholm, which have been taken to the United Kingdom, France, Spain, Holland, and ports in other European countries. About 37,000,000 feet. Sixteen vessels, four of them at this port, are now being laden with lumber for the other side, and will take between 8,000,000 and 9,000,000 feet at the commencement of the season, in spring the average price realized was 55s. per standard. Lately there has been an increase, and the average is now 70s, but the rise in freights has swallowed up what extra profit might have been made by merchants.

ST. JOHN, N. B.

From our own Correspondent.

Oct. 24.—Freights are dull and shippers appear to have determined to hold over the remainder of their stocks either until freights decline or prices of deals advance in England.

There is about 25,000 standards of deals on hand here at present besides a large quantity of logs yet to be manufactured, but the stock is nearly all in second hands, and two-thirds of it is held by two firms alone. There is therefore not the amount of opposition in chartering vessels which there usually is with such a stock on hand.

Deals are held firmly at high rates, and higher rates than ever are still being asked for log in contract to be delivered next season. Freights to-day may be quoted as follows :—

Liverpool ..... 70s. c. d.
Bristol Channel ..... 67s. 6d. c. d.
Ireland ..... 70s. 0d. to 75s. c. d.

SHIPPING.

The following is a list of the vessels in port, with their tonnage, destinations and rates of freight :—

Vendome, (new), 1,400, Liverpool, 73s. c. d.
Vanduara, (new), 1,400, " 72s. 6d. c. d.
John Bryce, 1,908, " 71s. 3d. c. d.
Hugh Cann, 1,074, " 70s. c. d.
Traveller, 814, " 70s. c. d.
Canall, 1,091, " 70s. c. d.
Assyria, 729, " 70s. c. d.
Anna P O'Dell, 380, Avonmouth Dock, 71s. 3d. c. d.
Blanco, 344, Newry, 72s. 6d. c. d.
Kate Crosby, 696, W. C. England, 72s. 6d. c. d.
Landsen, River Mersey, 72s. 6d. c. d.
Finland, 537, United Kingdom,
Ashlow, 639, Bristol Channel, 70s. c. d.
Clandeboye, 872, Belfast, 70s. c. d.
Rebekka, 569, W. C. England, 72s. 6d. c. d.
Clara, 801, United Kingdom,
Light Brigade, 1,220, United Kingdom.
Wm. Wright, 748, United Kingdom.

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881.			1882.		
Deals. M. S. ft.	*Pine. Tons.*	*Birch. Tons.*	*Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
170,416	805	4,153	147,678	1,082	3,890

VESSELS LOADING THIS DATE.

1881.		1882.	
Ships.	*Tons.*	*Ships.*	*Tons.*
18	15,648	14	10,596

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ₱ M	$57 00@64 00
Pine, fourths	57 00@59 00
Pine, selects	52 00@54 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 42@00 45
Pine, 10-in. plank, culls, each	00 22@00 25
Pine boards, 10-in	00 28@00 32
Pine, 10-in. boards, culls	00 20@00 21
Pine, 10-in. boards, 16 ft., ₱ M	30 00@35 00
Pine, 12-in. boards, 16 ft	30 00@34 00
Pine, 12-in. boards, 13 ft	27 00@29 00
Pine, 1¼ in. siding, select	45 00@47 00
Pine, 1¼-in. siding, common	18 00@20 00
Pine, 1-in. siding, select	45 00@47 00
Pine, inch siding, common	18 00@20 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1½-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ₱ M	40 00@43 00
Ash, second quality, ₱ M	25 00@30 00
Cherry, good, ₱ M	60 00@65 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M	40 00@43 00
Oak, second quality, ₱ M	20 00@25 00
Basswood, ₱ M	25 00@30 00
Hickory, ₱ M	40 00@40 00
Maple, Canada, ₱ M	28 00@30 00
Maple, American, per M	26 00@28 00
Chestnut, ₱ M	35 00@40 00
Shingles, shaved, pine, ₱ M	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 60
" cedar, mixed	0 00@ 3 60
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ₱ M	0 00@ 2 00
Lath, spruce, "	0 00@ 2 25
Lath, pine, "	0 00@ 2 50

CHICAGO.

The *Northwestern Lumberman* of Oct 21, says: During the week the cargo market has each day been well supplied, the offering being rather larger in proportion than for some weeks past. The ruling indications have been a continuation of the dullness and neglect which have been the text of our report for the past month, perhaps a little more intensified. Shippers, realizing that the season is drawing to a close, manifest a strong inclination to get their stock to this side of the lake, although a large amount of piling at the mills is reported.

The first of this month showed the largest stock ever known in the history of the trade at this or any other distributing point in this country, and with the full yards which this would indicate, buyers are indisposed to pay

anything which approaches to fancy prices, and are not hungry to add to their stocks, even at the reduced rates now ruling. While it is to be said that good stocks hold their own on the market, in the main, it is also true that they are not taken with eagerness or avidity, and probably sympathise with the dullness in coarse stock, so that it is not much out of the way to assert that the whole market is 25 cents lower than a week ago. One cargo of stock which sold a few day ago for $20.25 after being upon the market for two days, was taken to a storage dock on owner's account in default of a better offer than $20 made on Wednesday, and not removed on Thursday. Thursday's offerings comprised a fleet of 30 vessels, of which 14 were shingles, and of the total 21 remained unsold at noon. Short length dimension, 16-foot and under, is fairly quotable at $10, while it requires a good addition of longer lengths to bring $10.25. Boards and strips are quotable 25 cents lower than last week. Shingles have shown a disposition to increase in quantity of late, but we can hear of no concession in price. The large offerings of Thursday, however, will have a tendency to try the market severely, although no break is reported at this writing and holders talk firmly.

CARGO QUOTATIONS.

Short dimension, green	$10 25@10 25
Long dimension	11 75@13 00
Boards and strips, No. 2 stock	11 75@13 75
No. 1 stock	15 00@22 00
No. 1 log run, culls out	17 00@23 00
Standard shingles	2 60@ 2 65
"A"	2 70@ 2 95
Clear	0 00@ 3 25
Lath	0 00@ 2 25

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending October, 19, as reported by the Lumberman's Exchange:

RECEIPTS.

	Lumber.	*Shingles.*
1882	55,291,000	24,733,000
1881	59,175,000	21,321,000

FROM JANUARY 1 TO OCTOBER 21 INCLUSIVE.

RECEIPTS.

	Lumber.	*Shingles.*
1882	1,716,902,000	736,686,000
1881	1,562,358,000	682,937,000
Inc	154,544,000	24,749,000

LAKE RECEIPTS TO OCT. 18.

1882	1,507,865,000	643,761,000

STOCK ON HAND OCT. 1.

	1882.	1881.	1880.
Lumber	660,118,942	541,763,015	467,966,545
Shingles	265,189,150	241,455,200	173,753,000
Lath	52,267,802	38,333,925	48,755,681
Pickets	3,363,270	2,788,430	2,193,317
Cedar posts	161,719	211,048	67,006

BUFFALO.

We quote cargo lots:—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

OSWEGO, N.Y.

No change in market since our last; market is dull, stocks are heavy and accumulating; freights advanced $1.35 from Port Hope and Bay ports; canal rates, $2.25 to Albany and $3 to New York.

Three uppers	$42 00@45 00
Pickings	32 00@35 00
Fine, common	20 00@25 00
Common	16 00@18 00
Culls	12 00@14 00
Mill run lots	17 00@22 00
Sidings, selected, 1 inch	30 00@37 00
1½ inch	30 00@37 00
Mill run, 1x10, 12 inch	17 00@21 00
selected	22 00@28 00
Stripe, 1 and 1½ inch mill run	16 00@20 00
" " " culls	12 00@15 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	0 00@ 4 30
XX, " "	0 00@ 3 25
XXX, 18 inch, cedar	3 50@ 3 75
XX " "	2 60@ 2 90
Lath	2 00@ 2 10

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$43 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

BOSTON.

The *Journal of Commerce* says:—There is a good steady demand for almost all desirable kinds. Lumber is arriving pretty freely but it is mostly on orders, and is pretty soon taken up. Very little remains on the market. Wholesale dealers are pretty firm in their views, and dealers are stocking up in view of winter rates, which will soon go into effect. Spruce and hemlock are in good demand and light supply and prices are firm, Shingles are also quite firm. Eastern pine is arriving fairly and is steady. Yellow pine is moving fairly and at about previous prices. Hardwoods are arriving largely but mostly on orders. Ash is looking rather stronger. Walnut is firmly held for desirable grades, although culls are rather neglected.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

LONDON.

The *Timber Trades Journal* of Oct. 7, says:—The arrivals of timber ships in the port of London this week show an abatement in point of numbers, as compared with the week before, being no more than 56, of which steamers formed one-half, and out of the rest ten are from Canadian waters, all sailing vessels. Thus the winds that check arrivals from the Baltic favor ships from America, and on this account there is seldom any considerable fleet from both directions at the same time. As the wind has since shifted again to the north-east, we may expect a further access of Baltic vessels to be reported before our next issue.

LIVERPOOL.

The *Timber Trades Journal* of Oct 7, says:—During the past few days the arrivals of timber-laden vessels have been somewhat more numerous than we have been accustomed to recently, and as soon as they get fairly to work the quays will again assume a busy aspect, which has certainly not been the case for the past two or three weeks.

There is no change in the condition of this market; prices remain without alteration, whilst the demand is still quiet though steady.

The list of imports, consumption, and stock of timber, deals, &c., in Liverpool and Birkenhead made up to the end of the past month is of great interest and shows some curious features. Thus, for instance, the consumption of spruce deals appears to be only 1,162 standards, or say about three ordinary cargoes, whilst the import has been 2,463 standards, or more than double the apparent demand. This is really not so, as a large proportion of 2,463 standards were sold by auction, at the end of last month, and will nearly all go direct into consumption as fast as the vessels discharge.

The demand for Quebec yellow pine, especially for good qualities, continues fair, a large proportion of what has been taken during the month being waney board pine, of which some prime parcels have been recently landed.

BRISTOL.

Messrs. King Brothers' October circular contains the following:—Trade has been fairly maintained throughout the whole of the past month, and there now appears to be a better tone in the demand. We note a decrease in the importation as compared with the corresponding month of last year. Quebec goods.—Yellow pine timber—The arrivals so far have been entirely for railway purposes outside the general market. Waney board pine is inquired for, and fresh arrivals will meet a ready sale. Red pine—None. Oak remains very dull of sale. Birch, ash, and walnut—All are much wanted, stocks being exhausted. Deals.—There appears to be a fair inquiry for third quality, but 1sts and 2nds are neglected. Great difficulty is experienced in obtaining tonnage, only one cargo having arrived this season. New Brunswick goods—Spruce deals have again risen in value, but the demand is languid, and prices current here are not nearly equal to those received at at the chief ports. Pine deals—No arrivals. Birch appears to be in very fair demand.

GLASGOW.

The *Timber Trades Journal* of Oct 7, says:—Several parcels of Quebec deals per steamers have been landed here during the past week, also various lots of American walnut logs and oak planks, &c., and a large cargo of Picton birch timber (say 1,100 logs), which should meet the present wants of trade, the market being bare of Lower Port birch. At Greenock there has been a very light import. It is to be noted that at that port the arrivals from Quebec this year (which include all the Quebec log timber imported to the Clyde) show a marked falling off compared with the corresponding period of 1881. As represented by the tonnage employed in conveyance, the figures are: 1882, 26,000 tons; 1881, 46,000 tons. This decrease is attributed to the continued dulness in the house-building trade, and partly to the increased employment of iron and steel in shipbuilding (decks, masts, yards, &c., being now largely made of steel and iron). The import of pitch pine to the Clyde this year has, however, been to a fair amount, the tonnage employed in conveyance summing up at date to 39,000, a total which, though about 9,000 tons under that of the same period of 1881, is considerably in excess of previous years.

An auction sale of Quebec pine deals took place here on the 4th inst., Messrs. Singleton, Dunn, & Co., brokers. The following were the prices obtained, but the bulk of the goods catalogued was withdrawn, prices offered not being satisfactory to the brokers:—

Qnebec 1st pine deals—

12 it.	18/22×3	3s. 6d. per cubic ft.
12 "	17×3	3s. 4d. "
12 "	16×3	3s. 2½d. "
12 "	15×3	3s. 2d. "
12 "	14×3	3s. 1½d. "
12 "	13×3	2s. 11d. "
12 "	12×3	2s. 10½d. "

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Our facilities for BOOK-BINDING enables us to execute every description of work as well as it can be done in the cities, and at current CITY PRICES.

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21

MILLS AT THUNDER BAY.

The Prince Arthur's Landing *Sentinel* says the Thunder Bay Lumber Co. is the name of a firm recently organized for the purpose of carrying on the lumber business there. The company own, and it is there intention to cut the pine on the Indian reserve in the township of Neebing; 2,000,000 feet board measure will be logged this winter, and it is their further intention to have completed and in running order by June next a saw mill with a capacity of 25,000 per diem. Also shingles, lath and planing mill; the whole to be built between the line of the Canadian Pacific Railway and the Bay shore, near the town limits. The importance of this enterprise in the future of the town cannot be over-estimated. It is, you might say, the pioneer manufacturing industry of Prince Arthur's Landing, and nothing so surely tends to the development and growth of any business as the successful carrying out of enterprises requiring a large amount of labour.

Mr. Thos. Marks is going to erect, during the coming winter, on the property adjacent the "O'Brien Addition," a large saw mill with a capacity of 5,000,000 or 6,000,000 feet per season.

Mr. Mona Lesser will be at Prince Arthur's Landing in a few days for the purpose of making arrangements for the working of the mill situated on Park Lot No. 1. The proprietors have decided to work this as a flour mill, and it is expected that there will be no difficulty in securing a sufficient supply of corn from the Northwest, over the C. P. R., during the winter, to keep the mill in constant working.

OTTAWA LUMBER TRADE.

The following figures represent the quantity and value of the sawed lumber exported from Ottawa and vicinity for the last fiscal year:

Month.	*Ft. Board M's*	*Value.*
July	24,299,000	$ 284,500
August	23,634,000	316,196
September	21,251,000	287,508
October	19,677,000	249,446
November	15,207,000	201,364
December	3,358,000	32,895
January	1,887,000	24,114
February	1,535,000	20,353
March	2,533,000	33,193
April	2,340,000	38,866
May	18,134,000	297,860
June	30,200,000	416,036
Total	163,055,000	$ 2,202,229

The figures for each month of the previous year:

Month.	*Ft. Board M's.*	*Value.*
July	23,225,000	$ 245,537
August	25,986,000	278,167
September	29,674,000	322,786
October	20,318,000	232,612
November	19,650,000	222,350
December	745,000	10,599
January	945,000	10,479
February	1,670,000	17,797
March	2,451,000	28,339
April	2,581,000	31,573
May	22,198,000	273,886
June	24,324,000	282,180
Total	173,797,000	$ 1,956,324

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c. measured and culled to Oct. 13:—

	1880.	1881.	1882.
Waney White Pine	2,081,344	2,611,796	2,473,010
White Pine	3,875,628	5,541,578	7,438,595
Red Pine	1,017,177	1,874,730	1,419,054
Oak	1,461,787	2,685,159	1,149,396
Elm	932,784	1,009,496	701,020
Ash	236,815	397,041	263,196
Basswood	363	3,576	1,273
Butternut	645	2,991	2,039
Tamarac	30,726	24,416	51,482
Birch & Maple	561,815	151,742	268,333
Masts	4 pcs	25 pcs	33 pcs
Spars	23 pcs	— pcs	51 pcs
Std. Staves	58.3.2.28	368.7.2.29	352.6.2.13
W. I. Staves	331.1.2.21	445.4.2.20	1134.8.0.6
Brl. Staves	10.8.2.10	.....	75.4.2.29

JAMES PATTON,
Supervisor of Cullers.

Quebec, Oct. 13.

BEATING RAILWAY COMPANIES.

The *Northwestern Lumberman* says:—The following account may evince the gullibility of Russian railway managers, but the scheme would hardly work with American railway men:—

A sly timber merchant of Odessa, so a European correspondent says, got the best of a couple of Russian railway companies a little while ago. He made a contract with them for the delivery of a large quantity of timber within a given time, and deposited 10,000 roubles as security to carry out his agreement, upon the understanding that the companies would convey the merchandise gratis. Train load upon train load reached the city stations, the companies successively declining the timber as not being equal to what was contracted for. Fresh orders were sent out by the merchant to his agents for a better quality, and more train loads brought more timber of an objectionable description, which the wily trader invariably disposed of to local merchants. The freights alone represented a fortune ten-fold the amount of his cash deposit, and having realized he coolly threw up his contract, allowing the companies to divide his security.

JEFFERSON'S SAW MILL.

The following story is told of President Jefferson, and it has a good point in it:—Jefferson was a great man, but he was far from practical in some things. When he was in France he was very much struck with the utility of windmills. He thought they were wonderful institutions, and cost so little to run. He owned a large quantity of timber on a mountain much higher than Monticello, about a mile off. He purchased in France a wind-mill and the machinery for a saw mill at the cost of $13,000, and had it taken to the top of the mountain. He had for a neighbour a bluff old fellow named Cole. One day Cole came to see him, and Jefferson took him up to where he was having the mill built. It was as much as they could do to climb the steep ascent. When Cole recovered the breath he had lost getting up the mountain, he said, "Mr. Jefferson you have a splendid saw-mill, and it is a splendid place to catch the wind, but how are you going to get the logs up here to saw from?" The author of the "Declaration of Independence" started like a man suddenly awakened from a delightful dream, and quickly said, "Hey, Cole, how? What?" And then, relapsing into abstraction, led the way down the mountain toward Monticello. The wind mill was never completed, and years after the machiney was sold for old iron.

ARRIVALS IN LONDON.

The *Timber Trades Journal* of Sept. 30th, says:—There were no less than 77 vessels with whole or part cargoes of wood reported for London during the week, from the 21st to the 27th inclusive, most of them with full, and many with cargoes of various descriptions; 37 of this fleet are steamers, and with very few exceptions the cargoes were from European ports, one only being from the Canadian side; for the present the London market seems chiefly occupied with the Swedish and Finland shipments, which are, to say the least of it, sufficiently abundant to ensure that there shall be no want of similar goods when the navigation closes. In all this heavy list not a single cargo is reported from Quebec or from St. John, N. B., neither from the Gulf of St. Lawrence, or from any of the pitch pine ports of the Southern States which is something remarkable; yet timber from these latter are still a drug in the market, and Pensacola hewn logs of good average at Thursday's sale, with difficulty realized 67s. 6d., some going as low as 52s. 6d. a load.

WOOD CARVING.

Wood carving in Schleswig is being carried on by Herr Christopher Magnussen, who a few years since established a school for wood-carving there. The name of Magnussen as a distinguished painter must have become familiar to many, but hereafter it will be better known as that of the reviver of the art which we have just mentioned. We say reviver advisedly, inasmuch as that Schleswig and the adjoining states supplied carving for the decoration of English homes several centuries ago, and shiploads of useful and ornamental work were yearly transmitted across the German ocean. The school is now in a must promising condition, having already made great strides in technical and artistical knowledge under the experienced guidance of its master. Besides modeling natural forms, such as leaves and tendrils, the more advanced among the students have attempted to represent the human form. This disinterested undertaking is so praiseworthy, from an artistic and material point of view, that it deserves the strongest support and widest publication. The town of Schleswig has given its hearty support and countenance, and we warmly wish the undertaking prosperity.

PRICES FIRM.

The *Lumberman's Gazette* of Bay City, Mich., says:—There is this singular fact in connection with the lumber market, that, opening at a fair figure in the spring, it advanced in price not only against the prognostications of the buyers and commission men, who looked confidently to a break in prices, but much beyond the calculations of the most sanguine among the manufacturers, and present figures seem even more solid than were the figures of April. Pine timber has also sympathised with the raise in lumber, and the figures of some of the recent transactions would have been regarded as wild less than a year ago. The same quality of lumber and at same point on the river brought in April $7.50, $15 and $36 per M., and early the present month $9, $18 and $38 to $40 per M., and it is quite as firm at the latter as at the former figures. The rise in value in the pine lands owned by one individual who operates largely in this city aggregates something over a million and a half of dollars.

FOREST PRESERVATION.

The Bay City, *Lumberman's Gazette* says:—The preservation of our forests, as we have repeatedly urged, is a matter that has been too long neglected. Public health and the preservation of our present climatic condition demand that something should be done quickly to stop the destruction of our forests. After all, the cost of tree-planting is so trivial that, if the importance of this matter were brought before the public, they would doubtless do much to assist in this matter by planting more shade trees about their houses, along the country roadsides, and whenever land was available for this purpose. So important is this matter that it demands legislative action on the subject. Some laws ought to be devised—and enforced—to prevent the present destruction of trees, and to encourage the planting of young timber.

Putting the Chief on his Feet.

The Hamilton, Ont., Fire Department, under the training and supervision of Chief A. W. Aitchison, is not excelled in efficiency by that of any other city in the Dominion. Chief Aitchison, by the way, met with a very severe accident in driving to a fire not long ago. His head, shoulders and back were injured in a terrible manner. Being asked how he accounted for his rapid recovery, he replied: "Simply enough; St. Jacobs Oil can put any man on his feet, if there is any life in him all. I used that wonderful medicine from the start, and the result is, that I am to-day in prime health and condition. St. Jacobs Oil, the panacea that comes to the relief of the Fireman for rheumatism, burns, etc., served me in my trouble and cured me quickly, completely and permanently. It is the standard medicine here in the Fire Department."

BAXTER'S MANDRAKE BITTERS never fail to cure Costiveness and regulate the Bowels.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

SURE, safe and effectual, that old remedy, Downs' Elixir, for the cure of Coughs and Colds.

ONE dose of Baxter's Mandrake Bitters will relieve Sick Headache. One bottle effects a cure. Price 25c. per bottle.

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ELECTRICITY and magnetism when properly passed into the blood, brain and nerve produces the most wonderful effects. We are told that these elements are perfectly blended in the medicine known as Mack's Magnetic Medicine, advertised in another column, and the good which has resulted from its use cannot be computed in dollars and cents.

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I have been greatly benefited.
My deafness helped a great deal—think another bottle will cure me.

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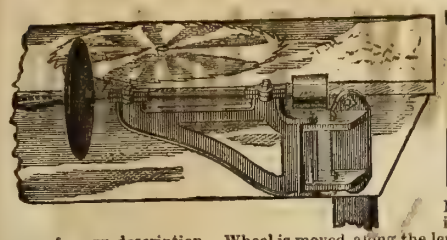

To MILLMEN!

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Hodgson's Patent Monitor Shingle Machine

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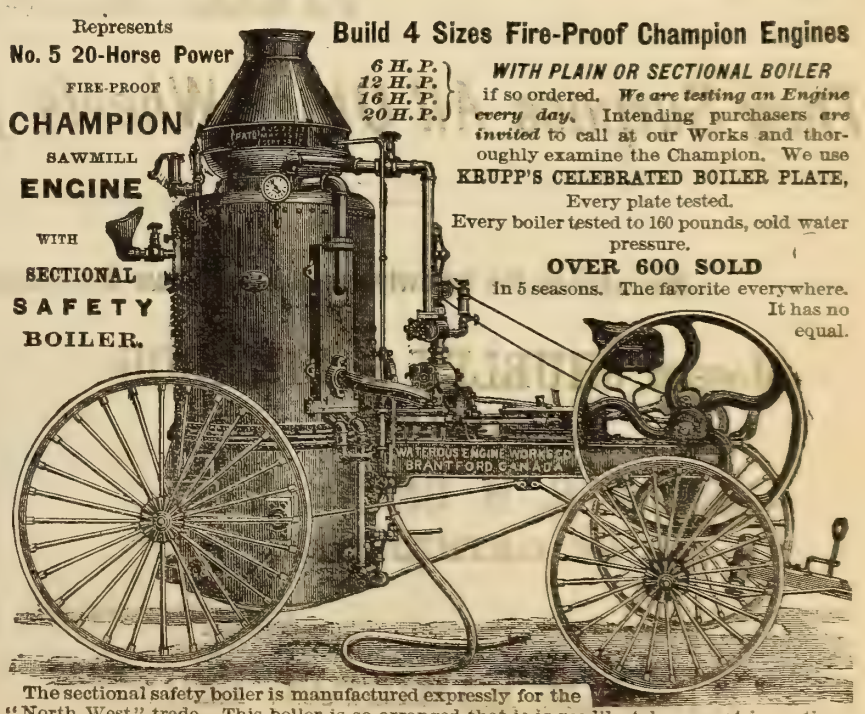

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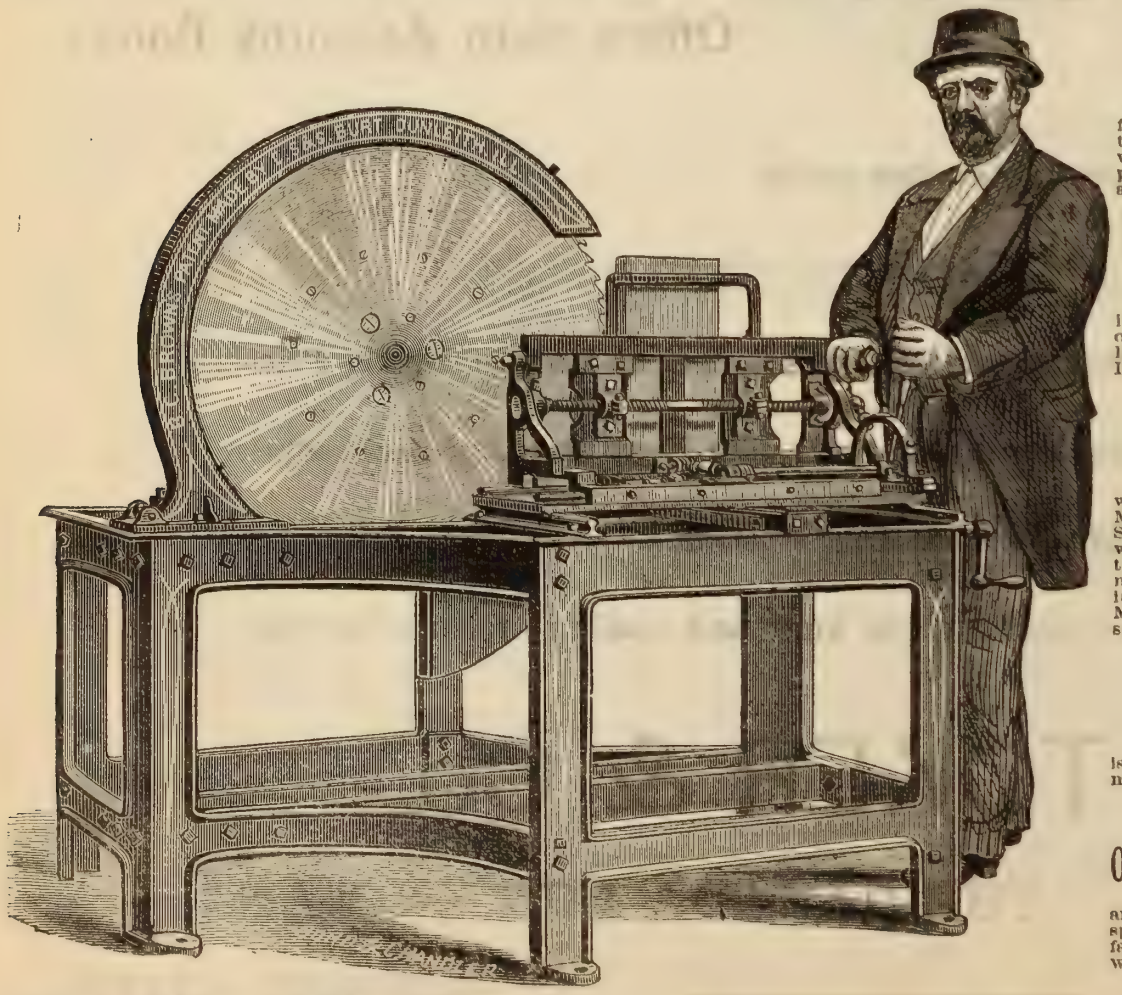

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DISTRIBUTION OF FOREST TREES.

The paper of Mr. Bell, of the Geological Survey, on "The northern limit of the principal forest trees of Canada, east of the Rocky Mountains, is embodied in the seventh report of the Montreal Horticultural Society. The law by which this distribution takes place has not been clearly traced or ascertained. "The range of any species," Mr. Bell says, "is not governed entirely by the mean annual temperature. The extremes of heat and cold in the west, as compared with the milder winters and cooler summers of the east, with about the same mean temperature for the year, appear to be the chief cause of the marked difference in the character of the woods in the two regions, since there is not a sufficient disparity in the amount of the annual precipitation to account for it. A great difference in the moisture of the air in the two regions, otherwise resembling each other in climatic conditions, has a powerful effect on the growth of forests; and the dryness of the air in the western prairie and arid regions is, no doubt, the chief cause of the absence of timber." Mr. Bell adds that "difference in the composition of the soil appear to have a local effect upon the distribution of forest trees." Nearly half a century ago, Dr. Richardson made a similar remark. He attributed to the nature of the soil what he called, perhaps on insufficient data, the sub-arctic vegetation on the northern shores of Lake Superior, while farther north was found a vegetation suited to a more southern region. There may, however, be other causes that affect the local distribution of forest trees. It is well known that where one kind of forest tree is destroyed by fire another takes its place; and it is therefore reasonable to conclude that forest fires have played a part in the local distribution of forest trees. So constant is the tendency for one kind of trees to displace another that, in some countries of Europe, the bogs have embalmed a regular succession of trees, each above the other.

In contrast with the great variety found in the United States, one is struck by the smallness of the variety of forest trees in Canada; three hundred and forty against ninety. Sometimes, however, fifty varieties are found on a single farm. And of this ninety some of the best—notably the black walnut—are becoming almost extinct. Here is a reason for planting, not only valuable native trees which are in danger of extinction, but also several foreign trees which thrive well in our climate. It is really astonishing to what a small extent this has been done. Let any one visit the Horitcultural grounds, at Toronto, and he will be astonished at the negligence there displayed. It is so in our parks, and with few exceptions in private grounds.

Mr. Bell's paper, with the accompanying map, may be taken as fairly indicating, in a general way, the distribution of the forest trees of the country; though it is probable that a necessity for correction in several particulars will here after be found. Of the distribution of the Tulip tree *(Liriodendron tulipifera)* he says: "At Niagara Falls, and in some localities westward near Lake Erie." This tree is found nearly two hundred miles north of the Falls of Niagara, north of the southern shore, on Foote's Bay, Lake St. Joseph. And even this may not be its extreme northern limit. The flowering Dog-Wood, which is abundant on the flats of the Humber, is spoken of by Mr. Bell as extending only as far as Dundas. And it is found more than 100 miles north of the Humber, and the farther north the larger it grows. To the Butternut, Mr. Beil scarcely assigns a sufficiently wide range on the north. We have no doubt that, as observation extends, other corrections will have to be made.

The same report contains a paper by the Hon. H. G. Joly, on "The Returns of Forest Tree Culture." Some authorities say that an acre of black walnut, thirty years old, is worth $20,400. This asumes that 680 trees can be grown to the acre; and we agree with Mr. Joly that the number is too great. Mr. Joly has gone into the experiment of tree-growing himself; and we trust that his example may be followed by many others; "they have," in the words of Mr. Joly, "no idea what source of pure enjoyment they will be creating for themselves." This enjoyment may grow to an absorbing passion, and it is gratifying to know that its indulgence would be of great benefit to the country.—*Monetary Times.*

PAPIER-MACHE FOR BUILDING.

A trade journal has the following regarding papier-mache:—It may claim to rival iron in the multiplicity of its industrial applications. In Europe it is employed to a considerable ex tent in architecture, from a complete church building in Bavaria (capable of seating 1,000 persons), having columns, walls, altars, roof and spire of papier-mache, to the finest traceries of a Gothic screen. Some of the most tasteful halls in Britian and on the continent are finished in it, in preference to wood. The mantels, and the mirror frames they support, are of its com position; and, strange as it may seem, the very chandeliers, in their gilded elegance, are of this humble material. Its use in architecture can literally have no limit; for no one to-day can say what may not be made of it. In toys, tables, bijouterie of all kinds, we have examples of its extensive uses, and suggestions of its future ap plications. Papier-mache never cracks, as wood, plaster, terra-cotta, etc., will do. In the same articles it can be made, if required, far lighter than plaster, terra-cotta, metal, or even wood. Neither heat nor cold affects it; it can be sawed, fitted, nailed, or screwed, quickly adjusted or removed, gilded, painted, marbleized, or bronzed. It can be made light as cork, or heavy as stone; never discolors by rust, as will iron; is not affected by temperature or oxygen, as is even zinc. It can be made for a given thickness stronger than any white or rare marbles, and is even tougher than slate, quite as hard, and will not chip corners nor crack off in strata. One of the great advantages of papier-mache is that it can be produced very cheaply. In architecture it can be supplied nearly at plaster price, and, taking into consideration the price of putting up, costs no more, and sometimes even less. This depends on the size of the ornament, the larger being cheaper in proportion. It can be made to imitate the rarest marbles, as it takes a polish superior even to slate, and costs not half as much as the preparation of plaster of Paris, known as scagliola, while it is infinitely stronger. Pedestals, columns, newel-posts, vases, clocks, and multifarious other articles are made of it in elegant and durable forms. Possibly, as a recent writer remarks, when the forests of the globe are regarded as curosities, and the remaining groves are preserved with the same care that has guarded historic trees, the cast off rags of mankind, and the otherwise useless weeds, reeds and grasses of marsh and swamp, will take the place of timber in construction, and many will welcome the change, if for nothing else than that it will obviate much of the nuisance of frequent repaintings.

SUPERSEDING THE STEAM ENGINE.

Israel R. Blumenburg, of Philadelphia, claims to have invented a motor that will supplant steam. It is claimed that the practical utility of his invention has been demonstrated to the satisfaction of experienced engineers and scientists, and a company has been formed to introduce it in manufacturing establishments. Mr. Blumenburg claims to utilize a principle long known to scientists—the reactive force of bi-sulphide of carbon. The heretofore insuperable difficulty was to devise means to control the power; and this was the inventors first task. Having accomplished this, a new obstacle arose. It was found impossible to make a joint so mechanically perfect as to hold the vapor, which is much more penetrative than steam. A suitable joint-packing became necessary; the inventor hit upon it, and that forms a material part of his invention, making the success complete. The chief advantages shown for Mr. Blumenburg's device are cheapness and safety of operation. A leading manufacturing chemist of Cleveland, who has watched the progress of the motor with scientific interest, says the inventor will be able to give manufacturers a very economical and efficient power, doing away with boiler explosions and the consequent destruction of property and life. From an experience of many years in handling bi-sulphide of carbon he is prepared to say that with Mr. Blumenburg's apparatus much less danger is to be apprehended than from the ordinary steam engine. The economy of the machine consists in its capacity to produce, with a temperature of 180 degrees Fahrenheit, the same power as is obtained by steam with a temperature of 350 degrees. Mr. Pedrick, the company's president, says he will run his establishmens with this new motor within 60 days, and that it will make steam worthless except for heating purposes.

CURIOSITY OF TREE GROWTH.

An interesting observation on tree rings is recorded by Prof. Bachelart in *La Nature.* During a visit to the ruins of Palenque, Mexico, in 1859, M. Charney caused all the trees that hid the facade of one of the pyramids of the place to be cut down. On a second visit in 1880, he cut the trees that had grown since 1859, and he remarked that all of them had a number of concentric circles greatly superior to their age. The oldest could only have been 22 years of age, but on a section of one of them he counted 250 circles. A shrub, 18 months old at most, had 18 concentric circles. M. Charney found the case repeated in every species, and in trees of all sizes. He concluded that in a hot or moist climate, where nature is never at rest, it may produce, not one circle a year, as with us, but one a month. The age of a monument has often been calculated from that of trees that have grown on its ruins. For Palenque, M. Larainzar calculated 1,700 years, having counted 1,700 rings in a tree. M. Charnay's observation requires the number to be cut down to 150 or 200 years, making a considerable difference, a matter of 1,500 years. Prof. Bachelart asks whether M. Charnay took account of certain colored rings which some tropical trees present in cross section, and which are to be distinguished from the annual circles.

JOINERY FOR ENGLAND.

The *Timber Trades Journal* says:—Further information has reached us respecting the intended importation of American yellow pine mouldings and joinery work. There can be no doubt but that a vigorous effort will be made next season to create other forms of American manufactured wood. Some novel forms of manufacture will be introduced, and, from what we can gather, every effort will be made to introduce them to the favourable notice of the trade here. The best recommendation which American joinery has is the really splendid quality of the material of which it is usually made. Few home made articles at all approach it in this respect.

When examining a pile of ready-made doors from the States we frequently turned over door after door without finding a blemish. For moulding and architraves it may be quite possible to create an active demand, and with respect to pine doors, it may be said that this now exists.

PROSPECTS IN THE STATES.

Active preparations for work are being made on every logging stream. With a favourable winter the cut of logs will be heavier than in any previous year, and it will be very large no matter what the winter may be. The high prices which have ruled during the past two or three years will stimulate the mill men to provide for all the logs that the saws will cut, regardless, we fear, of the fact that the outlook for the coming year is not particularly bright. There are some conservative manufacturers who see that there is a great deal of lumber in the country at present, and that a large cut of logs for the season of 1882-3 is not desirable. These, however, are few in number. The majority will use their greatest efforts to make the biggest showing on record.

The cost of logging cannot, in most cases, be accurately computed until the close of the season. When there is heavy snow the wear and tear on horses and cattle, harnesses, and sleds, is considerably greater than when it is just enough for convenience. As the logging outfit of the heavy concerns have a value of from $50,000 to $75,000, this percentage of loss, in a season of deep snow, is one that cannot be disregarded.

In some districts there is an advance in stumpage that must be considered. On the Menominee there is no advance. On some of the Wisconsin streams stumpage is from 50 cents to $1 higher than it was a year ago. In the Duluth region it has advanced somewhat, and nearly everywhere in Michigan a small advance may be counted on. There are many instances where such prices have been paid for timber that if the purchaser makes any money out of it he may consider himself fortunate, but these fancy prices, when the lumber business is considered generally, should not count.

Wages, on the whole, will not materially vary from last season. A scarcity of men has been talked of on some streams, but such talk is usually heard every season, and this fall there is no excuse for it. For years men for the woods have not been so readily obtained in Chicago as now, owing doubtless, to the fact that there is a general let-up in railroad building. On one stream in Wisconsin cooks are in great demand at present, and as high as $60 has been offered. Last year they were obtained at from $35 to $45. But such an exception proves little, for as soon as it is known that cooks are wanted there will be a supply at less than $60 per month.

Horses and oxen are higher than they were last fall. The disposition grows every year to put none but the best of draught horses in the woods. Such horses are high, ranging in price from $250 to $300 each. Twenty spans were recently sent to the upper peninsula from this city, for which $520 a span was paid. Last fall $500 would have bought them. Oxen are proportionately higher, and good ones are selling at from $175 to $200 a yoke.

Last fall hay was not plenty, but this fall it is abundant, and sells at $3, and in some locations more than that amount less than it did a year ago. Pork is higher, and beef about the same. Beans are cheaper. Corn is high, but oats are being bought at eight cents under the prices of last year.

The opinions of several careful operators bear a striking similarity. One places the cost of logs for the coming year at 5 per cent over the cost last year, another at 7 per cent., while another says 50 cents on the thousand, which, considering the price of logs in his district, amounts to about to about 6 per cent. It must be borne in mind, however, that these estimates are made on the supposition that the winter will be an average one.—*Northwestern Lumberman.*

CULTIVATION OF FOREST TREES.

There is no mystery in the scientific cultivation of forests, so far as concerns the tillage of the crop. All that is needed is to observe the action of nature in the forest, and follow it, or utilize it advantageously when that can be done. The object of the cultivation should be to obtain the utmost possible advantage from the soil by keeping it always covered with a growth of trees, and when the trees arrive at maturity to remove them in such a manner that the smallest possible interruption may be caused the productive works of nature. When the time has come for the removal of the timber, the ground should on no account be any where all cleared of trees at once; but a commencement should be made by felling a tree here and there, and so breaking the thick cover of the forest as to allow sufficient light or air to reach the ground, and cause the seed which has fallen to germinate. In this way one-fifth of the mature trees should be removed every five or six years, never by making large gaps in the cover, but taking a tree here and there, and always leaving the finest and most vigorous trees till the last, so that in about thirty years the whole of the trees will be cleared off, and a new forest established in their place. Thus the seeding of the wood will be effected by the agency of the finest trees, which will be themselves all the while increasing in bulk, and the productive power of the soil will be utilized to the fullest possible amount. It is not only in the removal of the timber and the reproduction of the forest that we ought to study the action of nature, but it is equally necessary that we should do so in felling for improving the growing crop, or, as it is commonly called, the thinnings. The competition between trees after they reach the full height, at half their full age, is for space to spread their heads, and from this time until they arrive at maturity they go on always augmenting the diameter of their stems, but at the same time decreasing in number. It is calculated that if 1,600 trees of 4 inches in diameter can stand and thrive on an acre of ground, there will not be more than 400 of them when the trees have grown to eight inches, 200 when they have reached 12 inches, and between 100 and 140 when they have attained 16 inches in diameter. Little more is to be done in the earlier stages of a forest's growth than to keep the heads of the most valuable species from being overtopped by those which stand near them; this can be done best, not by removing the others, but by cutting off or breaking the tops, for it is desirable at this stage, for the sake of natural pruning, to have the trees growing as thickly together as possible. At a later stage thinning can be judiciously arranged so as to pass through the entire forest at intervals of from 10 to 15 years, enabling the whole area to be operated on in turn. In executing these, the most difficult of all forest operations, it will be well to remember that the object is to give room to the head of the trees, and not to their stem, for the stem will never be too close together as long as the heads have room properly to develop themselves. The favouring of the most promising trees, and the removal of the weaker ones, together with the preservation of the continuous shade to the surface of the ground, while all the trees have sufficient room to grow, should be the particular ends aimed at.—*Popular Scientific Monthly.*

TIMBER.

In examining the transverse sections of the stem of a tree, it is shown that it consists of three parts, namely, the bark, the wood and the pith. Around the pith the wood appears to to circle in rings. The external rings are not so hard and possess more sap than those which closely twine the pith, forming what is termed the heart-wood. These rings are also crossed by rays called the *medullary* rays, which reach from the centre of the stem to the bark. In structure the tree is made up of minute vessels and cells, the sap circulates upward in the tree through the vessels, and in its descent is conveyed to the leaves through the wood, and during he life of the tree the wood performs the functions of nutrition and secretion. The solid parts of a tree consist almost entirely of the fibrous parts composing the sides of the vessels and cells. It has been learned through various experiments that in the spring of the year the sap begins to ascend through the small vessels in the wood and descends through the bark to the leaves, and having passed through them, is deposited in a changed state between the bark and the last year's wood, forming a new layer of bark and sapwood, the old bark being pushed forward. As the annual layers increase in number, the sapwood ceases to perform its original functions, the fluid parts are evaporated or absorbed by the new wood, and the sides of the vessels being pressed together by the growth of the latter, the sapwood becomes heart-wood or perfect wood, and until this change takes place it is unfit for the purpose of the builder. The vessels in each layer of wood are largest on the side nearest the centre of the stem, and smallest at the outside. This arises from the first being formed in the spring, when vegetation is most active. The oblong cells which surround the vessels are filled with fluids in the early growth; but as the tree increases in size, these become evaporated and absorbed, and the cells become partly filled with depositions of woody matter and indurated secretions, depending on the nature of the soil, and affecting the quality of the timber. There is a great difference in the character of the annual rings, in different kinds of trees. In some they are very distinct, the side next the heart being porous, and the other being compact and hard, as the oak, the ash and the elm. In others the distinction between the ring is so small as scarcely to be distinguished and the texture of the wood is nearly uniform, as in the beech and the mahogany. A third class of trees have the annual rings very distinct, and their pores filled with resinous matter, one part being hard and heavy, the other soft and light colored. All the resinous woods have their character, as larch, fir, pine and cedar. The medullary ring, are scarcely perceptible to the naked eye in the majority of trees, but in some, as the oak and the beech, there are both large and small rings, which when cut through obliquely, produce the beautiful flowered appearance called silver grain.

In preparing timber for the uses of the builder, there are three principal things to be attended to, namely, the age of the tree, the time of felling and the seasoning for use. If a tree be felled before its full age, whilst the heart-wood is scarcely perfected, the timber will be of inferior quality, and from the quantity of sap contained it will be very liable to decay; on the other hand, if the tree be allowed to stand until the heart-wood begins to decay, the timber will be weak and brittle; the best timber comes from trees that have nearly done growing, as there is then but little sapwood, and the heart-wood is in the best condition.

The best time for felling trees is either in midwinter when the sap has ceased to flow, or in midsummer, when the sap is temporarily expended in the production of leaves. An excellent plan is to bark the timber in the spring and fell it in winter, by which means the sapwood is dried up and hardened; but as the bark of most trees is valueless, the oak tree (whose bark is used in tanning) is almost the only one that will pay for being thus treated.

The seasoning of timber consists in the extraction of or evaporation of the fluid parts which are liable to decomposition on the cessation of the growth of the tree. This is usually effected by steeping the green timber in water, to dilute and wash out the sap as much as possible, and then drying it thoroughly by exposure in an airy situation. The time required to season timber thoroughly in this manner will of course much depend on the sizes of the pieces to be seasoned, but for the general purpose of carpentry, two years is the least that can be allowed, and, in seasoning timber for the use of the joiner, a much longer time is usually required.

Properly seasoned timber placed in a dry situation, with a free circulation of air round it, is very durable, and has been known to last for several hundred years without apparent deterioration.

This is not, however, the case when exposed to moisture, which is always more or less prejudicial to its durability.

When timber is constantly under water, the action of the water dissolves a portion of its substance, which is made apparant by its becoming covered with a coat of slime. If it be exposed to alterations of dryness and moisture, as in the case of piles in tidle waves, the dissolved parts being continually moved by evaporation and the action of the water, new surfaces are exposed, and the wood rapidly decays.

Where timber is exposed to heat and moisture, the albumen or gelatinous matter in the sapwood speedily putrifies and decomposes, causing what is called rot.

The rot in timber is commonly divided into two kinds, the wet and dry, but the chief difference between them is, that where the timber is exposed to the air, the gaseous products are freely evaporated; whilst in a confined situation they combine in a new form, viz: the dry rot fungus, which, deriving its nourishment from the decaying timber, often grows to a length of many feet, spreading in every direction, and insinuating its delicate fibres even through the joints of brick walls.

In addition to the sources of decay above mentioned, timber placed in sea water is very liable to be completely destroyed by the perforations of the worm, unless protected by copper sheathing, the expense of which causes it to be seldom used for this purpose.

The best method of protecting woodwork from decay when exposed to the weather is to paint it thoroughly, so as to prevent its being effected by moisture.

It is, however, most important not to apply paint to any woodwork which has not been thoroughly seasoned, for in this case, the evaporation of the sap being prevented, it decomposes, and the wood rapidly decays.—*Timber Trades Journal.*

TAR ROOFS.

The London *Builder* says that the German Government has on several occasions pointed out to farmers and others interested in agriculture that too great an expenditure of capital on buildings is a mistake. With a view of illustrating the application of this principle of economy to roofing, the *Cologne Gazette* points out that the system of using tar for roofing purposes is at the same time economical and suitable for agricultural buildings, and what is said may serve as an answer to a recent inquiry in our own pages. The framework of the roof can be of relatively slight construction on account of the nature of the covering it is intended to support, and the perpendicular height of the roof can be one-eight or one-tenth of the entire depth of the building. The distance of the rafters is arranged according to the width of the covering material, the scale being that from the middle of one rafter to the middle of another. The distance should be 2⅜ in. less than that the width of tar roofing sheets.

Immediately upon the rafters come boards, and upon these (exactly in the centre of the separate rafters) are placed strong laths, about 2 in. wide and 1⅜ in. thick, the upper edges being taken off. The roofing sheets are now placed so as to cover the spaces between the laths, and are nailed. Over the laths are placed strips of paper, 5 in. to 6 in. wide, fastened with nails at intervals of 2⅜ in,

In order to make the sheets lie smoothly upon the boarding, it is suggested, in case they are too dry, to soften them by immersion in water. It is recommended that the workmen should not wear heavy-nailed boots, and also, that if the rain comes on, the roof should not be walked upon immediately after. When the entire surface of the roof is covered with sheets, the strips of paper (or caps) already named, as well as joints, are painted over with a hot mixture of coal tar and pulverized lime. Pure dry sand is at once sprinkled over this coating, and particular care must be taken that all the nail heads are well covered. When the paint is dry the whole surface of the roof is once more coated with the same mixture, and is sanded.

The object of this careful method of overlaying the roof with several coatings of specially prepared solutions is to preserve in the tar those oleaginous and fatty properties which it soon loses if exposed to the air, and the retention of which is an indispensable condition of its resistance to water. Clay and sand do not afford sufficient protection, and they are removed by violent winds.

Refererence is made to various systems of coating the tar roof with protective substances, for the purpose indicated. One of the most successful methods consists of a mixture of cow dung and thin white lime, which is spread over the entire surface of the roof. If such a coating is not applied the tar paint must, during the first four years, be annually renewed, which enhances the cost of the roof. If the last named productive composition is used, and renewed every two years, the coating of tar and lime can be dispensed with. Particular mention is, however, made of a coating of tar mixed with Portland cement, the tar being well heated and used in the proportion of 111 pounds to 200 pounds

of cement. The mixture should be kept well stirred during the preparation, and should be applied as soon as made. This particular method has been tried in many cases in Germany, and, according to the journal quoted from, its satisfactory results have caused its adoption upon a scale of progressive importance.

SWISS FOREST PRESERVATION.

Rev. Dr. Wheeler, of the *Methodist*, writes from Chamouni :—"The Swiss land is mostly economized. The mountain side that is nearly perpendicular in not a large acreage ; the mountain side that is very steep and yet will, with the help of roots, hold soil, is valuable for the growth of wood. Hemlock and beech are the chief forest trees ; and the cultivation and preservation of forest land is vigorously regulated by law. If an owner clears a piece of timber land he must replant it. In some cantons he cannot cut a tree without a permit. The sound practice prevails of clearing small plots at once —not cutting a few trees here and there through a wood as with us. A small plot is cleared, the stumps and brush entirely removed (every twig of the branches being saved for wood), and then the space is replanted (usually from nurseries) and the new trees cultivated, trimmed out or thinned as they may require. In this way Switzerland, using much timber (its rural and village buildings being chiefly wooden), and having no coal beds for its fuel, keeps up an abundant supply of timber and wood on the strictest principles of economy. The Swiss Alps are covered with wood ; and the immense timbers which the traveller sees by the wayside are all the fruit of cultivation on a good system regulated by law. We Americans will have to learn in this matter of the Swiss and Germans. The native forests which we have been squandering for a hundred years will hardly last into the next century. Already I see that a convention has been held in the west to devise plans for preserving the remnants of our great woods. We shall have to come down to system and regulation—and produce our wood and timber as methodically as we "make" corn and pork. I ought not to pass over the economy of the land, which is shown in the absence of fences—which have taken so much money from the pocket of the American farmer—and the cultivation of every corner ; or the excellence of the macadamized roads, which are also economically narrow. The woodgrown sides of our rural highways will by-and-by disappear, and three of the four rods of their width will be taken into the bordering fields. After we have made these little economies and learned the arts of irrigation and timber culture, the greatest country in the world will be still more worthy of our patriotic devotion.

NORFOLK (VA.) VIRGINIAN.

Yes, sir, it is all that it is claimed to be. I have tried it, and have advised and witnessed its trial on others. I tell you its effects are simply wonderful. It gives a cure, and without much trouble at that. I had been suffering a great deal for over a month with very severe pains, contracted from a cold. I first experienced the pain in my side ; and from its peculiar nature, I thought that it might be the premonition of paralysis. My friends were fearful ; but after it shifted about, from one side to the other, from arm to leg, shooting through my body in a most infernally torturing manner, I knew that it was rheumatism that had me, and I sought remedies of different kinds, without effect, until I chanced to see the advertisement of St. Jacobs Oil, and read of its wonderful cures, when I resolved to give it a trial. That was about two months ago, and I had then been suffering a month of considerable agony. Securing a bottle of the oil, I applied it to the parts affected, and that night I had the first good night's rest that I had since the commencement of my attack. I gave two other applications and became perfectly cured—not suffering from rheumatism since—and that has been two months ago.

This was the story of his cure by St. Jacobs Oil as told by Capt. Jack McLean, who for fifty years has been a resident of Norfolk and Portsmouth, and who is as well known in Norfolk and Portsmouth as almost any of its citizens. It was in reply to some questions put to him by our reporter, who had heard of his remarkable cure, as well as of others that through Mr. McLean's instrumentality, had been brought about by the use of St. Jacobs Oil. After he had told the story of his own case, we asked him about the others, and he did not hesitate to relate them.

One was the case of a druggist from Warrenton, North Carolina, who, while on a business trip to Norfolk, during the recent snowy and sleety spell, had the misfortune to fall on the ice and bruised himself very severely, so much so that he was confined to his room at his hotel. Mr. McLean happened to visit the hotel when he heard of the accident, and having formed the accquaintance of the gentleman injured, advised him to give St. Jacobs Oil a trial. The druggist consenting, Mr. McLean brought him some of his oil, which he applied, with such a happy result, that he was enabled to go on his way home rejoicing. Another case, was that of Mr. Walter Howard, a well known fish and oyster dealer in our city. Mr. Howard had also during the recent sleety spell fallen and injured himself. Being intimate with Mr. Howard, Mr. McLean says he sought him, and finding what his injuries were, he recommended the use of the oil. The result as in the previous case was a cure—and a thorough cure. Mr. Howard is now a firm believer in the curative properties of St. Jacobs Oil.

But a more remarkable cure than all of the rest—and which our reporter had heard of before having any knowledge of Mr. McLean's connection with the case—was that of a venerable lady about seventy years of age, who, some two weeks ago, while seated at the suppertable, was stricken with paralysis, the whole of her left side being afflicted. Her speech was even affected. The family physician was sent for, and he at once prescribed the usual remedies, but without effect. The old lady was a family connection of the wife of Mr. McLean, and Mrs. McLean on hearing of her affliction visited the house, and learning that no relief had been secured from the physician's remedy, recommended the use of St. Jacobs Oil, relating its effect upon her husband. The oil was procured and applied. The afflicted side was well rubbed and partial feeling was restored. The second day after the first application the afflicted lady was able to sit up, and the third day she was well enough to sew. Since then she goes about the house apparently as well as she ever was, and she considers that she owes her life to the great curative virtues contained in St. Jacobs Oil. These statements of cures coming to our notice from our interview with Mr. McLean, brought to our recollection a statement made to us by Prof. G. B. Cromwell, who last February exhibited in our city his beautiful "Art Illustrations" at the Opera House, which each night attracted crowded and cultivated audiences. It was in connection with his recommendation to a gentleman who was suffering a great deal from rheumatism, and who on that account had been unable to attend the exhibitions. Prof. Cromwell advised him to try St. Jccobs Oil—even urged him to do so—and at last bought him a bottle of the oil, that he might have no excuse for not using. The gentleman, however, was then under the treatment of his physician, and did not use the oil. In explanation of the desire on his part why the oil should be used, Prof. Cromwell stated that he had some year or so before suffered excruciating torments from rheumatism, and that he had tried all kinds of medicines and so-called cures—all without effect. He heard, however, of St. Jacobs Oil, and resolved to give it a trial, which he did, and he stated that its effect on him was almost magical. A complete cure was effected, and since then he had never suffered from rheumatism. But in order that he might be at all times prepared for the enemy, he never travelled without carrying in his trunk a bottle or so of St. Jacobs Oil.

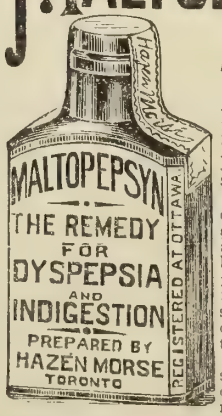
While the above facts relate to the very remarkable curative properties of this Great German Remedy, it appears, judging from what our druggists say, that the belief in its virtues is wonderfully strong among the people of all classes, and that they secure it as a sure relief from pain. No patent medicine, it is asserted, has ever had the sale that St. Jacobs Oil has had. No doubt much of this has been due to the extensive use of printer's ink, in the way of advertisements, almanacs, posters, sign bills, cards, puzzles, and everything in the printing line. But the many and many of certified cures and the interest which they have excited has had a vast deal to do with its popularity. It is sought by all, and is a boom to our druggists. Yesterday we detailed a reporter to visit the different drug establishments and to learn from them some facts regarding the sale of the oil. He visited, among others, the house of Walke & Williams and saw Dr. Walke, who informed him that the demand for the oil was simply wonderful. He stated that it had exceeded the demand for any patent medicine he had ever handled, and this was saying a great deal, as Dr. Walke has been engaged in the drug business for many years, and the business of his house is very great. He next called on the old and well-known drug house of M. A. & C. A. Santos. The senior of the house was not in, but his son was approached, and he said in reply to the inquiry of our reporter, that the sale of St. Jacobs Oil was tremendous—never anything like it. He next visited the extensive establishment of J. W. Burrow, and finding that gentleman present, asked him : How about the sale of St. Jacobs? His reply was : "Splendid ; the demand is very great. I make large sales of the oil." The drug store of Dr. H. R. Vaughan was next sought, and in answer to our reporter's interrogatory, Dr. Vaughan readily answered : "My sales have been remarkable. The oil goes fast."

We only conclude after the above statements of cures and sales, that there is a great deal in St. Jacobs Oil—and that where the benefactions have been so great, the Messrs. Vogeler & Co. may well be classed as benefactors—deserving the blessings of the multitude who have been cured.

Non-Inflammability of Redwood.

A quality of California redwood is its ready absorption of water when heated, which for a time makes it almost fire-proof. The San Francisco *Call* says that the quickness with which fires are extinguished in that city has often been remarked, and the celerity with which blazing buildings are often transformed into charred remnants is greatly facilitated by the entire lack of the resinous element in the redwood lumber. Resin, familiarly known as "pitch," is not only highly inflammable, but is insoluble in water and will burn while being drenched with the element, with which it will not mix. At a recent fire in that city the advantage of redwood over other lumber in the construction of buildings became apparent. The moment water struck the side of the building or roof timbers it not only quenched the flames but the wood absorbed water as a sponge would, and it became incombustible.

MALTOPEPSYN



AN Artificial Gastric Juice.

A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the rules of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

TREE CULTURE.

French authorities have awakened to the advantages of tree culture and have ordered that trees should be planted on barren spots belonging to the government. The reason assigned is the growing scarcity of timber in France. Here is one more good example to which those interested in the timber protection and culture movement can point with pride. It is further reported that tree planting is prospering in smoky London, and in Tooley street—which is described as a metropolitan ravine, a sort of abyss in brickwork, where anything that savored of green fields and pathless woods would appear impossible—a thoroughfare in the unsavory neighborhood called Bermondsey, it is reported that of eighty-four trees there planted only twelve have died, while the remainder are flourishing. This leads the *Standard* to reflect how much better it would be to employ the charms of nature to relieve the ugliness of the town than to put up statutes at which everyone shudders. There is a good deal of sound sense there. —*The Lumber World.*

ARRIVED AT QUEBEC.

The *Chronicle* gives the following list of rafts, etc., arrived at Quebec :-

Oct 25—King Bros, deals, St. Lawrence Docks.

D D Calvin (2), oak, pine, &c., sundry coves.

Collins Bay Co, oak, &c, Bridgewater cove.

Flatt & Bradley, staves, sundry coves.

S M'Rae & Co, do, do.

A Gilmour & Co, deals, do.

G Samson, deals, Indian Cove west.

Oct 26—Flatt & Bradley, staves, sundry coves.

Larkin, pine, etc, Dobell's cove.

Oct 30—J & B Grier, hemlock, &c, Russel's Dock, Levis.

British Canadian Lumber & Timber Company, white and red pine, St Michael's cove.

Nov 2—Simon Wigle, staves, Woodfield Harbor.

Sundry Lots, staves Union Cove.

Guy Bevan & Co, deals, Hadlow Cove.

17 YEARS' EXPERIENCE.

HOWIE'S DETECTIVE AGENCY

OFFICES, 32 KING STREET EAST,

TORONTO ONT.

All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward. 1y15

LUMBER

Shingles, Doors, Sash, Flooring, &c.,

WANTED,

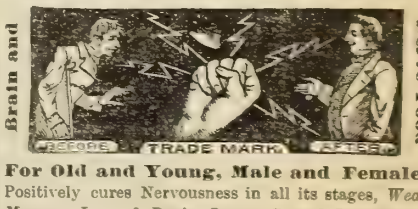
STATE QUANTITIES AND PRICE TO

SHORE & DAVIS,

Head Office, 514 Maine Street, **Winnipeg, Man.**

A CURE GUARANTEED.

MACK'S MAGNETIC MEDICINE.



For Old and Young, Male and Female. Positively cures Nervousness in all its stages, *Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Supermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs in either Sex.* ☞With each order for TWELVE packages, accompanied with five dollars, we will send our Written Guarantee to refund the money if the treatment does not effect a cure. It is the **Cheapest and Best** Medicine in the Market. ☞Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at **50** cts. per box, or **6** boxes for **$2.50**, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont.

Sold by all Druggists in Canada. 1y23

THE GREAT PINERIES.

The Chicago correspondent of the New York *Tribune* writes as follows :—Of the rather more than 2,000,000,000 feet of white pine lumber that yearly reaches the docks and yards of Chicago, nearly all comes from the western half of Michigan, the northern peninsula of the same state and the Green Bay districts of Eastern Wisconsin. Of the total amount, as much as 1,200,000,000 is derived from a dozen places along the Eastern shore of Lake Michigan. Muskegon alone in 1881 furnished 491,824,000 feet, and 25,715,000 shingles, while Manistee sent forward 151,130,000 feet of lumber, and 357,000,493 shingles, the latter place being the greatest shingle manufacturing place on that shore. The chief district of lumber manufacture on the upper peninsula is at the mouth of the Menominee River, which empties into Green Bay and divides the States of Michigan and Wisconsin. The mills are located at Menominee, in Michigan, and Marinette, Wisconsin. A large proportion of the lumber stock that goes to make up the residue of Chicago's 2,000,000,000 feet is produced at these two points. The Menominee district in 1881 furnished 265,917,000 feet of lumber, and this year it is thought the amount will reach over 300,000,000 feet. The other Green Bay and Upper Peninsula ports of importance in 1881 shipped as follows :—Peshtigo, 52,260,000 ; Ford River, 25,724,000 ; Escanaba, 5,680,000 ; Oconto, 7,210,000. Of Saginaw lumber in 1881 37,573,000 feet were received, but it probable that much more will have arrived at the close of the present season, on account of the unusual reaching about after stocks this year. Alpena, on the Huron shore, in 1881 supplied Chicago with 9,439,000 feet, and more than that will arrive from that port this year. Some is furnished from other Lake Huron points. Latterly the Lake Superior region has produced considerable lumber, most of which has reached the Chicago market, the arrivals from Ashland in 1881 amounting to 20,995,000 feet, and from Ontonagon to 1,360,000. The lumber industry of that section is being greatly developed, and the time will soon come when the output along the south shore of the great lake will swell the yearly total to 250,000,000, but a large part of it will no doubt go to supply the markets of the new Northwest by way of Duluth and the three Northern Pacific railroads.

It is impossible to estimate the influence the pine of Michigan and Wisconsin has had in the development of the Northwest and of the entire country. An important factor in this great agency is the fact that a water way existed between the forests and the prairies. White pine is a light and portable timber, eminently adapted to the wants of new settlers, easily worked by partly skilled labor. It has furnished a material for the building of houses, the improvement of farms, the sudden growth of cities and villages, and by its means an empire has been created, as it were, in a day. Comparison is the most conclusive argument ; and if one compares white pine with the yellow or pitch variety of the south, it will be seen that if the northwest had been dependent upon the weighty and hardly worked pine of the southern sections of the country, the progress of the prairie states would have dragged far behind its present advanced condition. Even to this day, when railroad facilities from south to north are quite ample, the weight of yellow pine amounts to almost an embargo on shipments to the northwest, though strenuous efforts are being made to overcome this difficulty by cheaper freights.

The estimate placed on the standing pine of the northwest by the Federal census forestry bulletins, however much they may be criticised, has served to awaken much interest in the present and prospective pine supply. Ten years ago it was claimed in the Saginaw Valley that the available pine in that section would be used up in ten years ; yet the yearly product since then has steadily increased, and last year the output was greater than ever before. The same is true of the Lake Michigan districts. This at first blush seems an inconsistent proposition, but being better understood, it appears more reasonable. When the first estimates of Michigan pine were made, the operators took into account only such timber as was accessible to the streams, and was of certain proportions. For instance, the time was when a pine less than fourteen inches in diameter was never cut. Now, such has become the insatiable demand that trees no more than eight inches in diameter are sacrificed to the greed of the lumbermen ; and it is a common joke among the red-shirted brigade that sawed sticks 6x6, are often seen with all four corners "waney." In the early days of the industry Michigan lumbermen penetrated the forests no further than would make a short haul necessary to bring the sticks to stream. After timber became scarce on short hauls, long hauls were undertaken. At length operations had become so thorough that teams could no longer bring the logs to bank, and there was a pause and a consideration of further appliances. At each stage of denudation the pine was said to be exhausted. Estimates of standing pine were always made with reference to the operator's ideas of what constituted available timber, both as to size and distance from water. When lumber was cheap it was, of course, impossible to put too much expense into logging. The cost of stumpage came in for consideration. At first it was worth nothing but the value of the land on which the trees grew, which was obtainable at Government price. In process of time, as the demand for lumber increased, stumpage began to rise in value, and passed through the scale from 25 cents a thousand to its present average Michigan price of $4.50 ; that is, the trees are worth that much a thousand as they stand on the stump, or two-thirds the average price of sawed lumber fifteen years ago. Stumpage in Michigan is now often sold at $5, $6 and $7 a thousand, according to quality and accessibility.

Recent estimates of the quantity and value of standing pine have become very different from what they were ten or twelve years ago. Now estimates are made as to quantity on a basis of eight inches in diameter and upward, and all the standing pine is reckoned, be it never so far from stream or lakeside. The demand for lumber has wrought the change in regard to size, and the new method of logging by pole and iron railroad has brought the remotest pine within reach of mills and market.

In the earlier days of the lumber industry of the north snow was relied upon for moving logs from the stump to the stream or lake, and is still to a large extent. But in Michigan the demand for raw material to feed the mills has become so urgent that snow and frost are elements too fickle to base a year's operations upon. In the old days the loggers operated near streams, had an investment of a limited capital, were supplying a rather profitless demand, and did the best they could with ice and snow. In open winters they brooked the loss of idle men and teams and unfulfilled contracts as best they could. Latterly lumbering has become a pro-profitable enterprise. Vast capital is invested in lands, stumpage mills and outfit. The yearly demand calls for 7,000,000,000 feet of lumber, and it must be met by a supply. The energy of money has grappled the logging industry, and dispenses with the agency of frost. Logging railroads have largely taken the place of the sled for long hauls. Pole roads are used for shorter hauls, and together they furnish a means whereby logging is carried forward in the snowless season as well as in the winter. The log supply no longer depends on the character of the season, as was once so much the case. The requisite nnmber of sticks can be put in to keep the mills running in any event.

The pole road is a simple tramway of poles, flattened for the car wheels, and placed end to end along the surface of the ground. Broad flanged wheels run on this rude track, and bear up immense loads of logs and convey them from the stump to the water with a great saving of power. The cars are drawn by horses, mules or oxen. This kind of road is much used in the south. But the iron or steel track logging railway is triumph of modern forest industry. By its agency vast forests of splendid pine in the interior of Michigan have been penetrated, and their crude wealth brought out to the manufacturing centres. But for this means the annual forest product of Michigan would have been one-third less than it is to-day, but regions that are now denuded would still have been clothed with a heavy growth of pine. Still it must be be said that the logging railroad has saved a vast amount of timber wealth from destruction by fire. It is well known by those familiar with forestry that in all the pine regions, especially in Michigan, devastating fires annually sweep over wide areas, and a large proportion of the most valuable timber is scorched and kilied before the lumbermen can reach it. If pine is not cut and put into the water during the winter following its being killed by fire, the succeeding season it becomes worm-eaten and "powder-pasted," and nearly or quite useless for sawing into lumber. Immense amounts of pine were formerly lost in this way. But since capital and enterprise have promoted the building of logging railroads, a great saving of burned timber has been made. A pine owner nowadays would be considered considerably lacking in enterprise if he permitted a large tract of burned pine to go to waste by neglecting to penetrate it with a railroad. The construction of railway lines like the Grand Rapids and Indiana, the Flint and Pere Marquette, the Detroit, Mackinac and Marquette, and others, through northern Michigan, has greatly developed the lumber industry of the State, by furnishing facilities for conveying the product to market. Like railroad facilities are being extended through northern Wisconsin, and are bringing the remotest timber resources of that State within reach of the lumbermen.

THE LUMBER INDUSTRY OF THE UNITED STATES.

The census department has issued a bulletin upon the lumber industry of the United States, from which we have compiled some interesting figures. The number of establishments for the entire country is 25,798, having an aggregate capital of $181,186,122, and employing 148,000 hands. During the census year the value of lumber used by these mills was $139,836,869, and the value of the product, after being sawed, was $233,367,729. Over $31,000,000 was paid out in wages. According to the value of products, Michigan ranked first, with $52,449,928 ; Pennsylvania second, with $22,457,359 ; Wisconsin third, with $17,652,347 ; New York fourth, with $14,336,910 ; Indiana fifth, with $14,260,830 ; Ohio sixth, $13,864,460 : Maine seventh, 7,933,868 ; and Minnesota eighth, $7,366,038. The statistics for the southern states are as follows :

States.	No. of establishments.	Capital.	Number of hands	Total value of Product.
Alabama	354	$ 1,545,655	1,647	$ 2,649,634
Arkansas	319	1,067,040	1,744	1,791,948
Florida	135	2,219,560	2,040	3,069,291
Georgia	665	3,101,452	3,392	4,875,310
Kentucky	670	2,299,558	2,501	4,064,361
Louisiana	175	903,950	975	1,764,640
Maryland	369	1,237,694	1,239	1,813,332
Mississippi	296	922,595	1,170	1,929,535
North Carolina	776	1,743,217	3,029	2,672,790
South Carolina	429	1,056,265	1,468	2,031,507
Tennessee	775	2,004,503	3,718	3,744,905
Texas	324	1,660,952	3,186	3,673,449
Virginia	907	2,122,925	4,011	3,434,163
West Virginia	472	1,668,920	2,181	2,431,557
Total	6,626	$23,550,076	32,302	$39,930,628

While these figures show that there is a large lumber business at the south, yet at the same time, they give some idea as to how very small it is with what other sections do, or when compared with the amount of standing timber in the South. A few comparisons may show the force of this. During the census year the value of the lumber cut in Michigan was over $52,000,000, against $3,600,000 for Texas : but the latter state now has 67,000,000,000 feet of pine standing, while the former has 35,000,000,000 feet. Louisiana has 48,000,000,000 feet of pine standing, and the value of he lumber products for the census year was only $1,754,640, while Wisconsin has 41,000,000,000 feet standing, and her lumber product was valued at nearly $18,000,000.

The vast lumber interests of the south are just beginning to attract the attention they deserve, and there are already signs of a local development which promises to be very rapid in the future. The northern and western states have in many instances cut the bulk of their best timber, and the mill owners are now looking to the south with a view of transferring their operations to that section. In some of the southern states, especially Florida, the demand for lumber for building purposes is very active, due to the heavy immigration, and this must continue for many years.—*Baltimore Journal of Commerce.*

THE SAWDUST CONTROVERSY.

The *Northwestern Lumberman* says :—Notwithstanding the result of the investigation of the Minneapolis Minn., sawdust committee on the navigation question, the St. Paul opposers are as aggressive as ever, and propose to clean out the Minneapolis interests on general principles, whether they are injuring or benefitting navigation. Ignoring entirely the subject-matter of the committee's report, the irrepressible Chamber of Commerce of St. Paul proceeds to "resolute" the Minneapolis mill men out of existence, as follows :—

Resolved,—That this Chamber of Commerce, in behalf of the citizens of the state of Minnesota and the entire Northwest, respectfully requests the attorney-general of the United States to ask for an injunction restraining all saw mills in the state of Minnesota from depositing mill refuse and sawdust in the Mississippi and Rum Rivers, and other navigable rivers of this state, as recommended by Col. Farquahar, United States engineer, formerly in charge of the improvement of the Mississippi at and below St. Paul, and by Maj. Mackenzie, now in charge of the same work, in his recent report to the chief engineers, the deposits being, in the opinion of the government engineers and steamboat men, the fruitful cause of obstructions to navigation, and injurious and destructive to the works of the government now in progress.

The above was unanimously adopted.

There is one feature about the sawdust controversy, which is to be deprecated. The matter has been utilized as political capital to furnish the basis for continued agitation. St. Paul and Duluth are red-hot after Minneapolis and its "pine land rings," and its journals pour out gall and warmwood in endless quantity, as tonic bitters for their river neighbour. For this reason much that is said on the sawdust question is apt to be the product of prejudice, and largely political fustian. That is no way to treat an important question. If the agitators have any real grounds for complaint, and can disprove the assertions of the committee that has reported in the premises, they should go about their work intelligently and prove what they allege. The milling interest is a heavy one, contributing in an enormous degree to the general prosperity of the Mississippi valley, and navigation as a whole is of immense importance likewise. To warrant inconveniencing the former interest it is necessary to show that navigation will suffer the most by the alleged evil.

While very radical in their assertions the agitators are decidedly meager in their demonstration, and it is an important fact that nearly all the volcanic wrath on the subject has emanated from the jealous rivalry of sister cities, the general community having rested very easy on the question.

The *Pioneer-Press* is inclined to believe that the bullabaloo that has been raised up is without much ground, and produces the following as a probable proof that the St. Paul agitators are on the wrong track :—

"Canada furnishes an interesting contribution to the current discussion of the sawdust question in the shape of a pamphlet containing the reports, made in 1873, by Hon. Wm. J. Alpine and Prof. D. M. Greene, civil engineers, on "Wood and Sawdust Deposits in the Hudson and Ottawa rivers." The points considered are : "What are the causes that induce the formation of bars and obstructions in navigable and other streams? What material usually compose such bars and obstructions? What are the specific gravities of these materials? What velocities of current are necessary to take up and transport these materials to a point of final deposition in the bar?" The conclusion reached, after careful investigation and experiment, accord with the facts found by the committee of the Minneapolis board of trade in their recent investigation of the channel of the Mississippi

river between Minneapolis and the head of Lake Pepin. They find that "a current velocity considerably less than one-fifth of a mile per hour sufficies to take up and transport slowly coarse, saturated pine sawdust; that a velocity of one-fifth of a mile per hour produces a very decided movement down stream of such particles, and that a velocity of one-fourth of a mile per hour sufficies for their entire and instantaneous removal," and the general conclusions were that "saturated pine sawdust will be permanently deposited in water when the velocity of the current exceeds twenty-five-hundredths of a foot per second, or one-sixth of a mile per hour, and that bars of sand and sawdust combined will not be formed under any circumstances unless there exist expansions of the river below such sand-bars sufficient to make a cross section more than double that at the site of the bar." These conclusions are the more important from the fact that they are based upon investigations in streams where sawdust has been annually deposited in vast quantities during the last fifty years.

SOUTHERN LUMBER.

Several Grand Rapids lumbermen have invested in pine lands and organized the Pascagoula Lumber Company. The *Eagle* says:—

"These parties have been for some time quietly examining and estimating timber through a large portion of the pine belt of the Mississippi. Much of the work has been done by members of the company and the remainder by men of known experience whom they have employed for that purpose since March, 1881.

Instead of hastily locating whatever they found vacant, they have taken time to examine a large portion of the available lands in the state in order to make the very best selections possible. The result is, they have obtained, partly from the government, and partly from private parties, a choice tract of 50,000 acres of the long leaf yellow pine, chiefly located on the Pascagoula river and its tributaries, where they can reach inland markets by rail and also have the facilities of river floating, and manfacturing where they have seaport navigation to almost any part of the civilized world, and they will immediately commence active operations in the manufacturing of the timber into lumber.—*Lumberman's Gazette.*

PRODUCE OF CROWN FORESTS.

The sixtieth report of the Commissioners of the Crown Forests, Woods, and Land Revenues has just been published, from which we gather that the amount received from all sources for forest produce, during the year ending March 31st, 1882, was £36,619 14s. 4d. This was divided as follows:—Windsor park and woods, £6,-119 9s. 6d.; New Forest, £12,222 10s. 6d.; Dean Forest, £7,984 5s. 9d.; Highmeadow Wood, £3,798 7s. 7d.; Alice Holt Woods, £1,-190 6s. 9d.; Woolmer Estate, £3,354 19s. 8d.; Bere Woods, £1,255 1s. 6d.; Parkhurst Woods, £643 13s. 1d.

In addition, the revenue from Crown Estates for timber during the twelve month was as follows:—

	£	s	d
Stagsden (Beds)	32	12	4
Windsor (Berks)		—	
Delamere (Chester)	611	6	11
Chopwell (Durham)	2	12	6
Eltham (Kent)	308	4	2
Torver (Lancs)		—	
Hazleborough and Salcey (Northampton)	966	15	8
Manor of St. Briavels (Gloucester)	0	3	0
Carisbrooke (Hants)	0	6	0
Billingborough and Gedney (Lincoln)	93	10	0
Egham and Esher, &c., (Surrey)	909	10	5
Poynings (Sussex)	42	8	2
Bromham (Wilts)	1	5	0
Total	£2,968	14	2

WANTON DESTRCUTION.

The *Lumberman's Gazette* says:—Timber destruction of the most wanton description is among the great evils which threaten the lumber industry of the country. Vast quantities of hemlock and oak are being destroyed for the bark alone, where the timber might be put to practical use. Untold thousands of feet of hemlock have been destroyed in Michigan alone in this manner, notwithstanding the growing importance and value of the wood, and still the work of destruction is continued. Young trees which, in a few years would come into the market are slashed down with the most shameful and wasteful extravagance, and larger trees are left to rot in the forest after having been stripped of the bark. In California, one of the handsomest trees in the state, known and designated as chestnut oak, is being sacrificed in the same ruthless manner. This slaughter is being accomplished in both cases to satisfy the demand for bark for the purpose of tanning. The leather business has been unusually good for a few years past, and the consequence is that over large districts in different states, oak and hemlock is being sacrificed in the interest of present pecuniary gain, the trunks being peeled and then left to decay. Some action to prevent such wanton destruction is demanded.

Russian Export Duty on Wood.

The following appears in the *Timber Trades Journal*:—

SIR,—Can you inform me what foundation there is for the rumor that a duty will be put on all timber exported from Russia next season? My Cronstadt representative writes me, under date October 7th, that nobody there knows anything about it. However, as the Russian Custom House has this season compelled us to specify the value of goods exported by each ship in the declaration now required by them, and the Gild Papers Commission, in going their rounds, are requiring from each shipper a schedule of his last year's exports, with values, &c., there may be some truth in the report.—I am, &c., J. R. BOYCE,

Granite Wharf, Wapping, E., Oct., 19th.

[We have no further corroboration of the above report since our last notes on the subject; but, as there is no smoke without a fire, we may conclude that something of the nature referred to by our correspondent is on the *tapis*. The large increase in the trade in timber with Russia the last ten years has no doubt been taken into consideration by those in authority as a means of increasing the revenue.—(ED. *T. T. J.*)

Duluth Business.

In speaking of the increasing importance of the lumber business at Duluth, the *Bee*, of that city, is very exuberant, as it is probably warranted in being. It says "there will be between seventy-five million and one hundred million feet of logs come down the Nenadji river next season. There have been contracts for that amount made already. This is a good instance of the growth of the lumber interests of Duluth. This amount would almost cover the entire cut of this season here, while last year only about one-third of the supply came from that river; should the supply from all the other sources increase as on the Nenadji there must necessarily be a very large increase in the lumber business in Duluth next summer."

Veneers and Panels.

The enterprising and wideawake city of Grand Rapids, Mich., is to have a new woodworking establishment in the shape of a veneer and panel manufactory, which will answer to the name of the Grand Rapids Veneer & Panel Company. The building, which is already up, is a large one, and new and heavy machinery will be used. The veneers will be cut from the log, and will be an eighth of an inch thick. For panels these veneers will be glued together. The stock of the company is owned principally by the furniture men.

Consumption Cured.

An old physician, retired from active practice having had placed in his hands by an East Indiana Missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung affections, also a positive and radical cure for General Debility and all nervous complaints, after having thoroughly tested its wonderful curative powers in thousands of cases, feels it is his duty to make it known to his fellows. The recipe, with full particulars, directions for preparation and use, and all necessary advice and instructions for successful treatment at your own home, will be received by you by return mail, free of charge, by addressing with stamp or stamped self addressed envelope to

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THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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PETERBOROUGH, Ont. NOV. 15, 1882.

THE cut of the N. Ludington Company, at Menominee, Mich., will be 30,000,000 feet by the close of the season.

THE head office of the Keewatin Lumbering and Manufacturing company has been transferred from the Lake of the Woods to Hamilton.

WOOD worms in woodword can be destroyed with benzine. When used in proper quantities it kills off the insect as well as the larvæ and eggs.

IT is said that at Evansville, Ind., more hardwood lumber is cut than in any locality of of the same size in the world. There are fourteen saw mills running which are capable of cutting 100,000,000 feet a year.

THE *Northwestern Lumberman* says :—Elisha Pike, of Bayfield, Wis., offers to denote a large and well located mill site on Pike's Bay to any one who will erect a first-class mill thereon. This winter 5,000,000 feet of logs will be banked on the bay.

A NEW pulp mill has been built at Great Works, Me., to utilize the poplar growing in that section. The new demand will permit many of the farmers to realize on a wood that has been of little value, either for fuel or lumber, the variety not being desirable for the latter purpose.

CHICAGO, being the great centre of the lumber trade, is naturally well supplied with organs for that special industry, The *Lumber Trade Journal* of that city is a new aspirant for the patronage of the trade, and should obtain a large share of it as it, seems to be carefully edited and compiled, and its "get-up" is excellent.

IT appears that government land, in Dakota especially, is being covered with fictitious timber claims. Land agents file these claims in the names of non existent persons, and then when a *bona fide* settler comes along, the agent sells him a relinquishment of his claim, at as great a price as he can obtain. The law should certainly be changed so as to head off these pirates.

AN Ottawa correspondent writing on Nov. 6th, says :—Owing to the high price of pork lumbermen are dealing extensively in beef. Three hundred head of cattle were shipped to-day for the shanties of the British Canadian Lumber Company.

ONE morning recently about 2.30 o'clock Mr. John Kincaid's steam saw and shingle mills, Omemee, were discovered to be on fire. Mr. Kincaid's loss is about $6,500, on which there is only $1,400 insurance. A number of men are thrown out of employment by this disastrous fire, which is supposed to be the work of an incendiary.

FOR the first time in several years there has been a clean drive in the Eau Claire, Wis., river. All the mills of the Eau Claire Lumber Company are turning out their full average product, but the log supply exceeds what can be sawed by the close of navigation. There are 13,000,000 feet in store. The company will have 10 camps, half of which have been started.

THE Buffalo *Lumber World* says :—From all quarters come reports that every indication is for a very busy season among the loggers. Many of the prominent lumber firms have decided to largely increase the output of logs during the coming winter and it seems probable that more logs will be banked than ever before. It might be well to remember that there is such a possibility as "getting too much of a good thing."

IN the course of a few years the Northern Pacific railway will run through an avenue of shade trees hundreds of miles in length. This extensive tree planting is being done to protect the road from storms and snowdrifts. In addition to having a large gang of men at this work between Fargo and Bismark, in Dakota, the officers have distributed immense quantities of seedlings and cuttings to the farmers settled on the land grant, and offered prizes for skill in forestry.

WE have received from the office of the *Northwestern Lumberman* a neat little pamphlet which is a detailed prospectus of that great organ of the trade. Among its contents are some valuable and very clear colored diagrams, eight in number, showing at a glance the estimated quantity of white pine and the long and short leaf yellow pine in the various states, the quantities of lumber and shingles supplied for the last twenty years and the prices for ten years past.

THE Carson river, in Nevada, is almost choked for miles by a heavy cordwood drive, The sticks lie low in water, giving evidence of being thoroughly soaked. The wood comes from the mountains, as far as 60 to 100 miles from Carson. Under ordinary circumstances a good drive costs but 15 cents a cord, but the present one will cost 10 times that. Just as the wood started the water fell, and instead of reaching its destination in June last, the drive was delayed till now, incurring heavy additional expense.

WE have received the *American Journal of Forestry*, the new organ devoted to the interests of forest tree planting, the formation and care of woodlands and ornamental plantations generally, and to the various economies therein concerned. It is edited by Franklin B. Hough, Ph. D. Chief of the Forestry Division of the United States Department of Agriculture, and is published by Robert Clarke & Co., of Cincinnati, Ohio. It seems admirably fitted to advocate the interests for the benefit of which it is published.

A St. Paul paper says :—The Big Woods of Minnesota are rightly named, for they cover 5,000 square miles, or 3,200,000 acres of surface. The Big Woods contain only hardwood growths, including white and black oak, maple, hickory, basswood, elm, cottonwood, tamarac, and enough other varieties to make an aggregate of over 30 different kinds. This hardwood tract extends in a belt across the middle of the state, and surrounding its northeastern corner is an immense pine region covering 21,000,000 square miles, or 13,440,000 square acres.

THE *Lumberman's Gazette* says :—Visitors to the field of lumber operations in Michigan or Wisconsin pineries, on viewing the destruction and wanton waste of timber that is being added to that already in existence to feed the fire fiend in case of an outbreak in a dry season, would hardly believe that forestry congresses are being held throughout the country having in view the prevention of the very thing which is being accomplished so steadily and persistently.

THE Grand Rapids *Democrat* says that dealers in oak, maple, cherry and other varieties of Michigan timber, who attempted to follow the lead of the pine manufacturers by crowding up prices, overreached themselves. Furniture makers found it impossible to buy the timber mentioned and at the same time compete with those who cut their own timber. The outcome has been that a number of Grand Rapids furniture men are investing heavily in the splendid hardwood lands of northern Michigan. Other manufacturers, who purchased sufficient lumber when it was cheap to carry them through for several years, "will probably be forced to go to the woods for supplies" when stocks are gone.

OUR CROWN LAND POLICY.

THERE is no subject with which the Ontario Government and Legislature has to deal of greater importance to the people than that of our Crown Lands, and there is to-day no subject which requires the earnest and immediate consideration of our public men more than this one. That the Crown Land policy of this province since confederation has not been what it should have been will be generally conceded by every one who has any knowledge of the subject, no matter how much they may differ as to what our policy should be. In this, as in most other things, it is much easier to point out defects than to suggest practical remedies—to pull down than to build up, especially when in the up-building one will be brought face to face at every turn with interests created by our past policy, which no honest and just man dare ignore. But, great as are the difficulties in the way of a remodeling of our Crown Land policy, they will have to be faced at no distant day, and the sooner the better, if we desire to avoid much the same awakening as that which awaits the spenthrift when he, all at once, discovers that he has spent his last shilling, This province, like him, is unquestionably spending, if not its last shilling, its timber patrimony, at a rate which will soon bring it to grief if we do not speedily change our present wasteful policy. Great as will be its loss to the province as a revenue producer, its disappearance must prove a much greater loss to the people by reason of the enhanced price which they will have to pay for every board and stick which they consume and the loss of employment which its decreasing manufacture will entail. About the certainty of these results we apprehend there will be no dispute, we will therefore pass on to the consideration of the principles which seem to us as necessary to the attainment of the object which we assume all claim to have in view.

In the first place let us say that we look upon our crown domain, with all either growing upon or lying beneath it, as the property of the people, to be managed so as to yield the largest possible return to the owners, and in the second place that we are of the opinion that the great defect of our past and present administration in this respect consists in the attempts to promote settlement and protect the timber for the lumberer in the same districts and even upon the same lots—an attempt which we venture to assert has lost to this province more revenue, and to the people of the country more employment, than we have gained, or can gain for years to come, from the settlers which have gone into, or will go into our free grant districts, for the purpose of agriculture. However, there is no use crying over spilt milk ; the question is, what should now be done ? Speaking generally we should say that it is the duty of the Provincial Government, before another license is granted or another township is opened for settlement, to ascertain whether the townships proposed to be licensed or settled are more valuable for their timber or for settlement. If the former, then they should not be opened for settlement, and the licenses should be sold upon that understanding in order that the greatest possible inducement may be held out to the purchaser to husband the timber ; if on the other hand it be decided that the township is so well adapted for settlement that its lands will be generally taken up for *bona fide* agricultural purposes, notwithstanding the inducements now held out to such settlers to go west, then no license to cut timber in such a township should be granted, but the timber which may be therein should pass to the settler with his location ticket subject to certain restrictions and to the payment of a rate of dues which would be equal to the current value of the timber at the stump. So far as the lands, already not opened to settlement, or already not largely surrounded by townships in which settlers have been located are concerned, we can see little difficulty in adopting some such policy as that which we have indicated, but the accomplishment of anything practical and substantial in the same direction in those districts covered by lumbering licenses, and opened for settlement and already partially settled, will be a matter of very great difficulty, although we should hope not an impossibility with the right man in the Crown Lands Office. Vested rights, and both the licensee and settler are in possession of vested rights, must be respected, no matter what the consequence may be. The Province cannot afford to break faith with those with whom it has entered into engagements, and upon the faith of which private individuals have invested there means, perhaps their all, but that is no reason why, even in these districts, an honest effort should not be made to bring about a change which would put an end to the present strife between lumberman and settler, and to that destruction of valuable property which is occasioned more or less by their antagonism.—*Peterborough Review.*

LUMBERING IN WINNIPEG.

To the Editor of the Canada Lumberman.

DEAR SIR,—The idea of pretty extensive lumber manufacturing in the capital city of the Prairie Province, may appear to many as somewhat singular ; but such is the fact. The immense lumber market is manifest at one glance, but the material is nowhere to be seen. The logs from the mills at Winnipeg are obtained chiefly in Minnesota ; being raw material they pay no duty ; they are principally white and red pine with a small quantity of oak. Spruce and tamarac are obtained around Lake Winnipeg and are generally sawn there.

There are three first-class circular mills which have commenced operations this fall and fully as many more second rate mills. All are busy. The Rainy Lake Company have a large two circular mill with engine and machinery principally from Stearns. The edger and trimmers we observed were from Sewrys, of Barrie, Ontario. This is a good mill with large cutting capacity, but we think not the kind of mill that has earned for Stearns & Co. their enviable reputation. Messrs. Jarvis & Berrige's mill has been remodelled this past summer and an excellent gang added. However, their motive power, though apparently ample, is not equal to its demand, so the gang hangs up its music.

The latest, and as repects quantity of machinery the least, is Mr. D. E. Sprague's single circular mill, it is the only thoroughly Canadian mill of the three. It, however, asks no favours of the critical lumberman. One of these made the apt remark that the mill was built by men who knewn what was wanted and knew how to make it. It was planned by Mr. Charles Elvidge, of Newmarket, Ontario, the boilers, engine and machinery were built by Mr. Wm. Hamilton, of Peterborough, and placed in position by W. H. Trout of the same town, and is now ably superintended by S. C. Saunders, formerly of the Thompson Smith mills, Bradford, Ontario.

The boilers and engine deserve special mention, the boilers being of steel well set in good brickwork with neat, durable and convenient fronts, and an excellent arrangement of heater, pump, &c. In the engine Mr. Hamilton surpasses his well known good reputation. It is a a slide valve engine, 18x24, runs 120 revolutions per minute, got up somewhat in the direct and effective style of the Corliss, has the valve balanced and it can be adjusted to cut off for any required work. Has the Judson governor ; has

large wearing surfaces, and seems to be got up on liberal principles thoughout. It performs its duty with an ease and grace of motion that is pleasant to see; an engineer must surely take pride in it. We regard it as about the *ne plus ultra* of saw mill engines.

The building is a genuine modern lumber factory quite different from the shedlike structure we mentally associate with a saw mill. this is a completely finished building; men can work in it comfortably in all weather. Apparently the logs come up from the Red River and enter the mill on their own account and after a brief career of merciless cutting they are metamorphosed into boards and found shooting out through a small opening in the opposite end, meanwhile special machinery takes care of the refuse, all of which is valuable here, the better part of the slabs being made into the usual lath, pickets, &c.

Millmen in Winnipeg have one great advantage over those in other places—they are in their market, and the most of their stuff is cut to order, consequently the immense piling grounds and large tramway systems, so common at the large lumbering mills of Ontario, are not required here, as the lumber goes direct to the customer.

At Mr. Sprague's mill there is a large elevated platform, on which the lumber is assorted, and from which it is loaded on to specially made waggons and delivered up town or in the yard as required. These waggons deserve a passing notice. They are arranged to be loaded without the team being kept waiting. Winnipeggers know the value of good horseflesh and the value of time, so they provide two or three pairs of hind wheels to one pair of front wheels, then with the help of a simple tressel, the hind wheels are loaded, teamster backs the front wheels under, readily couples up, and is away. To unload he generally uncouples, draws out the front wheels, turns aronnd, catches on to the back end, and draws out hind wheels, then couples up again and returns to repeat the operation on another load.

Much the greater part of the lumber used here comes from St. Paul. It is also noticeable that in this trade we do not get what we give. In the east we furnish the Americans full dimensions, that is $1\frac{1}{8}$ for one inch, &c. In the west we get $\frac{7}{8}$ths for one inch, and all dimensions scant.

Yours truly,
ONTARIO.

Winnipeg, Oct. 28.

FORESTRY.

The subject of American forestry at this moment possesses a broad and sweeping significance, and in view particularly of the results of a long series of investigation and experiments, as presented and discussed at the two great forestry meetings, held in Montreal and Cincinnati during the year, should not fail to impress its importance upon the minds, not only of those directly interested, but the consideration of the public generally. There is no object of interest to the farmer that should engage more of his attention for deliberation, discussion and earnest action than the resources whence he is to draw his building material, and in the nature of its durability and economy. For years past our extensive white pine forests, whose magnitude in the early years of colonization might well have challenged the unwelcome prophecies of to-day have been pillaged, destroyed and neglected, right and left, without a consideration given by those who controlled them to the necessity of surplanting the devastated lands with new growth, or of protecting the standing timber from the ravages of forest fires.

The Eastern States afford the best evidence of this monument of self-aggrandizement, and closely following come the States of Michigan, Wisconsin and Minnesota, with their resources predicted by good figurers to fail within a few years. Of course it cannot be expected that men eager to become rich and powerful would give much thought to the fact that they were under some little obligation to shield and repair as well as destroy. It is, however, the special province of others interested in the science of forestry, with doubtless some degree of philantrophic desire, and its practical demonstration in a large sense, to present to the judgment and understanding of our general government, as well as those of the various states in which there is still left evident reason for attention to the matter, the necessity of immediate steps in the direction of retrieving—before it becomes too late—a few at least of the neglected opportunities consequent upon the indifference and inattention of individual corporations.

With an apparent and undeniable demand for timber in the future progress and growth of the country, and unquestionable evidence that these lands which once teemed with the best white pine in the world are again nurturing a similar growth, it is to be hoped that no measure may be overlooked that will secure early encouragements in regard to the means to be employed and adequate provision from the numerous authorities appealed to for the required aid and action.

Several estimates have recently been made as to the quantity of standing white pine, and if there is any correctness in the figures, it only points to the rapid consumption of the past and present, and creates an anxiety as to the future destiny of every other kind of timber standing in the states. Men may conjecture and speculate upon the wonderful invention of the future, which is to be the substitute for an exhausted timber supply, but the light which falls upon the subject from the careful study and investigations of many able scientists, reflects the assurance that the best substitute is a new crop of timber.—*Timber Trades Journal.*

PORTABLE HOUSES.

The *Lumberman's Gazette*, of Bay City, Michigan, says:—The construction of portable houses which was commenced at Ottawa, Ont., some time ago, on a small scale, has reached great dimensions and the investors in the enterprize have secured a veritable bonanza. The cheapness and adaptability of these novel buildings, and the ease and quickness with which they can be utilized, is their chief recommendation. It is an old and true saying that necessity is the mother of inventions. The progress of the growth of Manitoba and the northwest, and the demand for comfortable shelter for the thousands of newly arrived immigrants there, was the necessity in this case which aroused the ingenuity of man to supply an absolute and imperative want. A bright idea flashed across the brain of one of those who realized the necessity and also the fortune for him who should immediately supply the demand. Houses could be constructed by machinery, in sections, ready for occupancy as soon as put together, much cheaper than the lumber could be transported and the houses constructed with the rude available appliances. The idea no sooner presented itself than it was acted on and the result is that the business received an impetus by the continued emigration to the northwest, and has reached mammoth proportions, and the novel buildings are not only being utilized in the new settlements, but a demand has arisen for them in other quarters. An Ottawa dispatch says that these houses are being shipped off at the rate of ten carloads per week for the demands of a single line of railroad. It is also stated that the manufacturer has interviewed the consul-general to Canada from Brazil, with a view of establishing a trade with that country in these buildings, and the business commenced with small beginnings to supply a present want is now one of the important industries in the capital of Ontario, and the inventor has not only furnished employment for an army of laborers, but is reaping a handsome reward for his shrewdness. It is said also, that these buildings are desirable not only because of adaptability under pressing circumstances, but that they are absolutely preferable to the ordinary cheap class of building in the rural districts because of their comfort and convenience.

A GREAT FOREST.

In the *Century* for October, E. V. Samley gave another of his sketches of a journey across the continent on the line of the Northern Pacific railway, in which he describes the great forest in the region of Lake Pend d'Oreille. This timber belt, probably 200 miles in extent, east and west, lies west of the Rockies, and covers the D'Alene and Spokane mountains, ranges that are not so high or rugged as to preclude lumbering operations. The district is watered by Pend d'Oreille and Spokane rivers, streams adapted for logging and mill sites, and Lake Pend d'Oreille, an irregular body of water of considerable size lies in the midst of it. This forest stretches quite across the Panhandle of Idaho, and laps over on the eastward into Montana, and on the westward into Washington territory. The Northern Pacific road sweeps through it in a curve, bending northward toward the British line, because a passage over the Rocky Mountains had to be sought to the southward of the direct shoot of the line from east to west. A few small mills have been started along the Pend d'Oreille and Spokane rivers and on the lake for the purpose of sawing lumber and timber for the railroad. The road is being graded in the neighborhood of the lake, 2,000 or more Chinamen being employed in the work. Six hundred miles of roadbed is to be finished, and the track laid before the Pend d'Oreille forest will be opened up to east and west traffic. When the road is opened through, grand rush of lumbermen to these primeval woods will surely follow. A great drawback on operations will be the Flathead Indian reservation that lies in the midst of the region. But the Indian will have to go when the lumberman puts in an appearance. Mr. Smalley's description of the region, though more rhapsodical than business like, is graphic and interesting, and exhibits the country as one not only rich in forest growth, but beautiful to the eye of the lover of striking landscape views, and capable of profitable husbandry.

A CURE FOR HEADACHE.—Thousands are suffering martyrs to this distressing trouble. If you have pure and properly vitalized blood coursing through your veins; if the stomach, liver, kidneys and bowels act rightly, you will never experience headache. Burdock Blood Bitters will effect this desirable condition, if properly used. Try it.

THERE is no better cough medicine in the world than the preparation known as "Pectoria." It promptly cures all throat, lung and chest affections. Its good effects can be felt after the first dose. It soothes, warms and penetrates the bronchial tubes, affording immediate relief and a speedy cure. Have you got a cough or cold? Then try it. For sale everywhere, price 25 cents.

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The extension of the Canadian Pacific Railway westward towards Manitoba, the establishment of steamboats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subsiding streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

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do and Jean de Terre		183	do	48
do	do	184	do	46
do	do	185	do	42
do	do	186	do	50
do	do	187	do	50
do	do	188	do	18
do	do	189	do	46 9-10
do	do	190	do	50
do	do	191	do	50
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do	do	195	do	39 6-10
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R. C. W. MacCUAIG,
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58 Sparks Street.
Ottawa, 1st September, 1882. 4L13

PREVENTING DECAY OF WOOD.

The *Timber Trades Journal* contains the following contribution by M. Powis Bale, M. I. M. E., author of "Wood-working Machinery, its Rise, Progress, and Construction," &c. :

Some woods decay much more rapidly than others; but they will all, in some situations, lose their fibrous texture, and with it their properties. To ascertain the causes which act upon woods, and effect their destruction, is an important object both to the builder and to the public.

Al vegetable as well as animal substances, when deprived of life, are subject to decay. If the trunk or banch of a tree be cut horizontally it will be seen that it consists of a series of concentric layers, differing from each other in color and tenacity. In distinct species of trees these layers present very different appearances, but in all cases the outer rings are more porous and softer than the interior. Wood is essentially made up of vessels and cells, and the only solid parts are the coats which form them. These vessels carry the sap which circulates through the tree, gives life and energy to its existence, and is the cause of the formation of leaves, flowers, and fruit. But when the tree is dead, and the sap is still in the wood, it becomes the cause of vegetable decomposition by the process of fermentation. There are five distinct species of vegetable fermentation—the saccharine, the coloring, the vinous, the acetous, and the putrefactive. We are indebted to Mr. Kyan for the discovery that albumen is the cause of putrefactive fermentation, and the subsequent decomposition of vegetable matter.

Something may be done towards the prevention of decay by felling the timber at a proper season. A tree may be felled too soon or too late, in relation to its age and to the period of the year. A tree may be so young that no part of it shall have the proper degree of hardness, and even its heartwood may be no better than sapwood; or a tree may be felled when it is so old that the wood, if not decayed, may have become brittle, losing all the elasticity of maturity. The time required to bring the several kinds of trees to maturity varies according to the nature of the tree and the situation in which it may be growing. Authors differ a century as to the age at which oak should be felled—some say 100 and others two hundred years; it must therefore be regulated according to circumstances. But it is also necessary that the timber trees should be felled at a proper season of the year; that is to say, when their vessels are least loaded with those juices which are ready for the production of sapwood and foliage. The timber of a tree felled in spring or in autumn would be especially liable to decay, for it would contain the element of decomposition. Midwinter is the proper time for cutting away, between the months of November and March, as the vegetative powers are then expended. There are some trees the bark of which is valuable, as well as the timber; and as the best time for felling it is not the best time for stripping the bark, it is customary to perform these labors at different periods. The oak bark, for instance, is generally taken off in early spring, and the timber is felled as soon as the foliage is dead; and this method is found to be highly advantageous to the durability of the timber. The sapwood is hardened, and all the available vegetable juices are expended in the production of foliage. Could this plan be adopted with other trees, it would be desirable; but the barks are not sufficiently valuable to pay the expense of stripping.

For the prevention of the ravages of worms and insects in timber, Evelyn recommends sulphur which has been immersed in nitric acid and to distilled dryness, which, being exposed to the air, dissolves into an oil. A solution of lime or an infusion of quassia wood are also recommended for the same purpose.

To cure dry rot in timber, subject it to a heat of 300 deg., thus destroying all reproduction of fungus. A solution of corrosive eublimate (bichloride of mercury) makes an effectual wash. Chapman says an ounce of corrosive sublimate to a gallon of water laid on hot; no other metalic solution should be mixed with it. A solution of sulphate of copper (commonly called blue vitriol) in the proportion of about half a a pound of sulphate of copper to one gallon of water, used hot, makes an excellent wash, and is cheaper than the preceding one. A strong solution of sulphate of iron is sometimes used, but it is not so effectual as that of copper, and sometimes a mixture of the two solutions has been used. Coal tar is said to have been found beneficial, but its strong smell is a great objection to its use; where the smell is not of importance it would assist in seasoning new timber which had been previously well dried. Charring new wood can only be expected to prevent infection, as decay may begin at the centre, and proceed without ever appearing at the surface of the beam; and therefore, if timber be not well seasoned, no permanent good can be obtained from charring.

A plan recently introduced into Belgium for preserving wood from the decay produced by the atmosphere, water, &c., is to fill the pores of the wood with liquid gutta-percha, which is said to effectually preserve it from moisture and the action of the sun. The process employed consists in exhausting the air from the pores of the wood and filling them with a gutta-percha solution, or by forcing the solution into the pores. The solid gutta-percha is liquefied by mixing therewith paraffin in the proportion of about two-thirds of gutta-percha to one of paraffin; the mixture is then subjected to the action of heat, and the gutta-percha becomes sufficiently liquid to be easily introduced into the pores of the wood. The gutta-percha liquefied by this process hardens in the pores of the wood as soon as it becomes cold. Railway sleepers, telegraph poles, roofs, &c., treated in this way are said to stand well.

The improved method adopted in France for the preservation of wood by the application of lime is also reported to give excellent results. The plan pursued is to pile the planks in a tank, and to put over all a layer of quicklime, which is gradually slaked with water. Timber for mining purposes requires about a week to be thoroughly impregnated, and other wood more or less time, according to its thickness. The material acquires remarkable consistence and hardness, and, it is stated, on being subjected to this simple process, that it will never rot. Beechwood prepared in this way for hammers and other tools for ironwork is found to acquire the hardness of oak, without parting with any of its well-known elasticity or toughness, and it also lasts longer.

Wood may also be preserved from rotting by impregnation with paraffin. As this, however, renders it more inflammable, it should be used with care, and as protection chiefly against water or acid and chemical fumes or liquids. It may be further protected by an external varnish or silicic acid. Wooden vessels which become totally rotten in two months under the action of acid and alkaline lyes, willl last for two years when impregnated with paraffin, The wood is prepared by drying it in warm air for about three weeks, and then by steeping it in a bath of melted paraffin, to which has been added some petroleum, ether, or sulphuret of carbon. Care must be taken at this part of the process, as the bath is exceedingly inflammable.

ITEMS ABOUT WOOD, &C.

Timber for posts is rendered almost proof against rot by thorough seasoning, charring, and immersion in hot coal tar.

Increase in Strength of Different Wood by Seasoning.—White pine, 9 per cent.; elm, 12·3 per cent.; oak, 26·6 per cent.; ash, 44·7 per cent.; beech, 61·9 per cent.

Comparative Resilience of various Kinds of Timber. Ash being 1, fir ·4, elm ·54, pitch pine ·57, teak ·59, oak ·63, spruce ·64, yellow pine ·64, cedar ·66, chestnut ·73, larch ·84, beech ·86. By resilience is meant the quality of springing back, or toughness.

To Bend Wood.—Wood enclosed in a close chamber, and submitted to the action of steam for a limited time, will be rendered so pliant that it may be bent in almost any direction. The same process will also eliminate the sap from the wood and promote rapid seasoning.

Fireproofing for Wood.—Alum, 3 parts; green vitriol, 1 part; make a strong hot solution with water; make another weak solution with green vitriol in which pipeclay has been mixed to the consistence of a paint. Apply two coats of the first dry, and then finish with one coat of the last.

To Prevent Wood from Cracking.—Place the wood in a bath of fused paraffin heated to 212 deg. Fahr., and allow it to remain as long as bubbles of air are given off. Then allow the paraffin to cool down to its point of congelation, and remove the wood and wipe of the adhering wax. Wood treated in this way is not likely to crack.

Comparative Value of Different Woods, showing their crushing strength and stiffness:—Teak, 6,555; English oak, 4,074; ash, 3,571; elm, 3,468; beeck, 3,070; Quebec oak, 2,927; mahogany, 2,571; spruce, 2,522; walnut, 2,374; yellow pine, 2,103; socamore, 1,833; cedar, 700.

Relative Hardness of woods.—Taking shell-bark hickory as the highest standard and calling that 100, other woods will compare with it for hardness as follows:—Shell-bark hickory, 100; pig-nut hickory, 96; white oak, 84; white ash, 77; dogwood, 75; scrub oak, 73; white hazel, 72; apple tree, 70: red oak, 69; white beech, 65; black walnut, 65; black birch, 62; yellow oak, 60; white elm, 58; hard maple, 56; red cedar, 56; wild cherry, 55; yellow pine, 54; chestnut, 52; yellow poplar, 51; butternut, 43; white birch, 43; white pine, 30.

Tensile Strength of Different Kinds of Wood, showing the weight or power required to tear asunder one square inch:—Lance, 23,000 lbs.; locust, 25,000 lbs.; mahogany, 21,000 lbs.; box, 20,000 lbs.; oak, African, 14,500 lbs.; bay, 14,000 lbs.; teak, 14,000 lbs.; cedar, 14,000 lbs.; ash, 14,000 lbs.; oak, seasoned, 13,600; elm, 13,400 lbs.; sycamore, 13,000 lbs.; willow, 13,000 lbs.; Christiana deal, 12,400 lbs.; mahogany, Spanish, 12,000 lbs.; pitch pine, 12,000 lbs.; white pine, American, 11.800 lbs.; white oak, 11,500 lbs.; lignum-vitæ, 11,800 lbs.; beech, 11,500 lbs.; chestnut, sweet, 10,500 lbs; maple, 10,500 lbs.; white spruce, 10,290; oak, English, 10,000 lbs.; pear, 9,800 lbs.; larch, 9,500 lbs.; walnut, 7,800 lbs.; poplar, 7,000 lbs.; cypress, 6,000 lbs.

WESTERN LUMBER LANDS.

The statement was made in a recent issue of a New Orleans paper that the lumber market of Chicago had not a sufficient supply on hand to meet the demand of the trade. The article went on to say that the vast amount of building which is now going on throughout the west, and especially in Colorado, Kansas and New Mexico, creates a constant demand for lumber, and as for some time past Chicago has controlled the trade, the west naturally looks to her for all the building material it requires. Owing, however, to the increased trade, and to the fact that the terrible forest fires in 1881 destroyed about 800 square miles of the best Michigan pineries, lumber is becoming remarkably scarce in the northwest. The agents of Chicago lumbermen are said to be buying up pine lands in the south, and it is rumored that 1,000,000 acres, well timbered, have been purchased in Louisiana and Mississippi. A reporter for the *Times* called the attention of several Chicago dealers to these statements, and Mr. Carpenter and others who were spoken to agreed in saying that the supply of lumber in the west would not be exhausted for eight or twelve years yet. Moreover, the demand was by no means as great as was represented. The farmers having generally held their wheat for higher prices than were offered, had not enough ready money to create a boom in the lumber business. It will consequently be a long time before the lumbermen of the west will be forced to seek their supplies in the southern forests. No foundation could be found for the rumor that immense tracts had already been purchased in Louisiana.—*Chicago Times.*

A HINT TO FORESTERS.

The *Northwestern Lumberman* says:—There is a great deal said now-a-days about tree raising, but when the object of that industry—if it can be called so—is to add to the lumber supply of the country, there is a serious objection of which the enthusiasts make no mention. These enthusiasts teach that when there is place for a tree, along the bank of a creek, by a fence, or elsewhere, by all means plant one. That is all right so far as it goes, but by all means let the man who plants it understand at the start that while the tree he fosters may beautify, shade, or turn the wind, it is not likely to be of any value to speak of for lumber. It is no news to any one acquainted with the forests that the trees best suited for lumber grow surrounded by other trees. Shaded on every side, in order to get the sunlight they reach up after it, and consequently grow tall. When there are no surroundings to shade them the limbs spring out close to the earth, and the trees grow more to top than trunk. Neither will the desired end be gained by planting trees as thickly as nature planted them in the woods which supply our saw logs. It seems to be a law in nature, if not in humanity, that the great should help forward the more feeble, and this is nowhere better illustrated than in the growth of forest trees. The tall tree is always standing in the way of the sapling, and the latter, that it may get the sustenance it needs from the light of the sun, shoots up and up, and this sapling in turn protects and urges forward the little staddle that starts its race of life under its protection.

EXTENSIVE LOGGING.

The *Northwestern Lumberman* says:—In every direction extensive logging preparations are being made. The indications are at present that more logs will be put in the coming season than in any one season before. No man can tell why there should be, but the fact that he cannot will have no tendency to lessen the cut. Operations on the main Michigan streams will be unusually heavy, and on several of those streams will be left over an unusually large number of old logs. The Muskegon will hold in its icy embrace something like 300,000,000 feet, nearly half as many as the mills at that point cut last season, and many will be wintered in the Manistee. In Wisconsin and Minnesota the amount carried over will not be large. Late rises in the streams have carried out many that were supposed to have been hung up, and the most of these that find their way down stream at this late day will be sawed. A heavy manufacturer in referring to the extensive work that is likely to be done in the woods remarked, "the fools are not all dead yet." There are a few conservative saw-mill men, but when their lumber yields them the profit that it has for two or three years past the temptation to turn out as much of it as possible is very strong.

Georgia Woods.

At the Boston fair the state of Georgia exhibited the following list of native woods, which is supposed to cover all the varieties: Georgia pine, which is used largely for car building; poplar cherry, which is well adapted for cabinet work; whitewood, laurel, beech, red cedar, yellow poplar, maple, sycamore, red hickory, cypress, black walnut, China wood (not very well knowh), white pine, sassafras, dogwood, post oak, black gum, white ash, white oak, tight-eye (not unlike boxwood), sparkle berry, crab-apple, apple haw, willow, scaly-bark hickory, tupello gum, white elm, May cherry, black locust, osage orange, chincapin, cottonwood, red-bark, magnolia, black jack (resembling birds-eye maple), catawba, maple, red oak, white holly, red bay, white bay, red elm, mulberry, ironwood, black-haw, persimmon and parsley-haw.

Satisfactory Results in Montreal.

While Montreal is a model city in many respects, it is not exactly a quarter section of Paradise, as Capt Goe. Murphy, Chief of Government police, can testify. A reporter of a Montreal journal waited upon this gentleman a short time ago, and put him the following query:

"Chief do you find the duties irksome and dangerous in your strange calling?"

"Irksome," replied Mr. Murphy, "I seldom find them; but that they are attended with danger is very true. There is danger to be faced, of course, from wind, weather and criminals, and the least of these dangers, is not those of exposure and bad weather. The heavy, moist atmosphere that gathers over the water is very conducive to rheumatism, and many of my men suffer from that complaint more or less. I believe that our danger from exposure from this time forward it past, as St. Jacobs Oil, if applied in time in cases of rheumatism, has a wonderful way of knocking that malady out of people. It certainly relieved me of a severe pain in my shoulders."

Chips.

It is estimated, from a proper source, that besides the lumber used for shelters at home, the territory of Washington will this year send abroad 365,000,000 feet of lumber.

At Houlton, Me., an important business in shingles and bark is done. F. Shaw & Co., of Boston, are building large hemlock bark extract works that will consume 20,000 cords of bark per annum.

Some of the Manistee mills are engaged in cutting piece stuff and piling it up, in the expectation that it will bring twelve dollars in the spring, when seasoned, or two dollars more than it is worth at present at that point.

The lumber business of the Pacific coast has increased from a single saw mill in 1848, situated near Bodega, Sonoma county, Cal., to over 350 mills at the present time, with a cutting capacity of nearly 1,000,000,000 feet annually.

Big knots seem to be the thing now a-days. The Indianapolis Veneer Works, of Indianapolis, Ind., recently purchased a huge walnut knot which, when cut and trimmed, weighed 7,000 pounds. It is a sort of big bonanza knot.

The burning of the lumber and planing mill of A. Backus & Sons at Detroit, was a severe blow to the industrial community as well as to the proprietors of the extensive institution. By it over 250 men were thrown out of employment, and property verging on half a million dollars destroyed.

A notable timber industry is being prosecuted in Lincoln county, Mo., where a man has a contract for getting out about 50,000 feet of pecan timber. He has a large force of men at work. The timber is to be shipped to St. Louis on barges, where it is sawed into lumber for making ice slides.

The Wisconsin lumbermen are making preparations for a big winter's work, and standing pine is exchanging hands at high prices. A few days since 2,000,000 feet changed hands at Neillsville, the consideration being $12,200. The haul is four miles. Good No. 1 logs are worth $9.50, and No. 2, $8.50.

Lloyd, Melrose & Polleys, of Neillsville, Wis., will ship a saw mill, grist mill and cotton gin from Ohio to southern Georgia, next month, and get ready for businesss in 1883. The gentlemen mentioned own about 225,000,000 feet of pine, and about 20,000,000 feet of cypress, oak, red cedar and other woods, which they will manufacture into lumber.

The Belleville *Intelligencer* says:—T. P. Pearce & Co. will cut half a million feet of stuff for jobbing purposes during the coming winter. They will operate in the township of Marmora, and will float their cut in Beaver Creek. This firm has already sent a large force of men to the woods and will largely increase the number when the cold weather sets in.

A new line is being surveyed in Wisconsin that is intended to connect with the Chippewa Falls and northern road, near Chetek or Cartwright, striking the Chippewa near Big Bend. The project is being engineered by, and in the interests of lumbermen, who desire to form a supply and shipping line for the timber country not now profitably accessible.

The comparative cost of transportation by rail and river is illustrated by the statement that a short time ago the La Crosse Lumber Company paid $1,860 for towing 3,000,000 feet of lumber to Louisana, Mo. To have carried the same amount of lumber by rail would have required 400 cars, which, at $50 per car, about the rate the railroads would give, wovld amount to $20,000.

The new line being built by the Wisconsin Central road from Chelsea, a station on the main line, to Rib Lake, a lumbering point 16 miles northeast, will probably be completed next fall, at an estimated cost of about $200,000. This project is said to be the forerunner of an extensive system to be eventually constructed by the Wisconsin Central to push into the northeastern woods, at present undisturbed by railway connections, and up through the iron country. Next spring it is intended to begin work on a branch from Winnebosha to run along the iron range northwest into Michigan, a distance of 40 miles.

The Hudson River Power & Pulp Company is building a dam and paper and pulp-mill, at Mechanicsville, N. Y. The pulp-mill will probably be finished in March. It will be of brick, and consist of five connected building, besides boiler and engine rooms, the whole covering a surface of 35,376 feet, and fronting 400 feet on the river. When finished it will grind 40 cords of wood daily.

Jerome & Williams, and Eaton, Potter & Co., of Saginaw, have purchased of the estate of Jesse Hoyt and Hill Brothers 40,000,000 feet of pine timber on the Chippewa, paying therefor $175,000, $80,000 to Hill Brothers for lands that cost them only four years ago $17,500, and $90,000 to Hoyt estate for lands which cost them much less a few years earlier. This timber is all reached by a log railroad which brings it to the Chippewa.

Regarding the antiquity of the saw, it is instanced that a frame saw is shown in a painting at Herculaneum. The sawyers are at each end, one standing and the other sitting. The bench to which the timber is secured by clamps is supported by four-legged stools. The saw blade is strained in the middle; the teeth stand perpendicularly to the plane of the frame. Frame saws were common in Egypt many centuries previous to this time.

The *Lumberman's Gazette* of Bay City, Mich., says:—Reports from nearly all the lumbering sections in the west and northwest are to the affect that great preparations are being made to secure a large stock of logs the coming winter. Large numbers of the red sash brigade and vast quantities of supplies and all the necessary accompainments are being sent to the pineries, where the ring of the woodsman's axe will resound, and the crash and roar of the giant pines as they are levelled to the earth will be the uninterrupted music in the forests during the long months which intervene between now and the commencement of milling operations in the spring.

The *Northwestern Lumberman* says:—Jerome & William, of Saginaw, Mich., have purchased the Wentworth logging railroad, eight miles long, with a locomotive, 25 cars, and a complete equipment. The road starts in town 16 north of range 8 west, leading in a southwesterly course to the banking ground near the forks of the Chippewa. The purchase includes the banking ground, dams, etc., and the new owners will put in thereon 12,000,000 feet of logs during the coming winter. After the 40,000,000 feet of timber in the vicinity owned by Jerome & Williams and Eaton, Potter & Co., are lumbered, the road will be removed to the Au Gres, and thereon will be handled the heavy body of timber owned by Jerome & Williams in that vicinity.

A great storm has prevailed in western California, which has seriously affected logging interests, and reduced the intended output considerably. The Eureka *Times* states that the damage sustained will mount up into the hundreds of thousands of dollars. In all the camps large crews were at work, and efforts were being made to get down to market before the rain set in, so that a sufficient amount of logs to supply the mills all winter would be at hand. The storm lasted two weeks, and during that time camps were shut down, and it is estimated that the log supply will be 10,000,000 feet short of the amount that would have been put into stream had the weather been more favorable. The mill men and contractors have suffered great loss by reason of heavy expenses during the storm.

A Boom in Pine Lands.

The *Lumberman's Gazette* says:—Probably no one circumstance or chain of circumstances better illustrates the peculiarities of the boom in pine lands than the facts which have lately come under our notice in regard to a tract of pine on the Au Gres. About two years ago it was purchased by a Saginaw party for $26,000. Last spring the same tract was sold to another Saginaw party for $35,000. A few months later that party sold it to a Lapeer concern for $50,000, and not long since this firm sold it to outside parties for $90,000. A raise in less than eight months of $55,000 and in two years of $64,000, or a little short of 250 per cent. on a figure that was considered all that it was worth.

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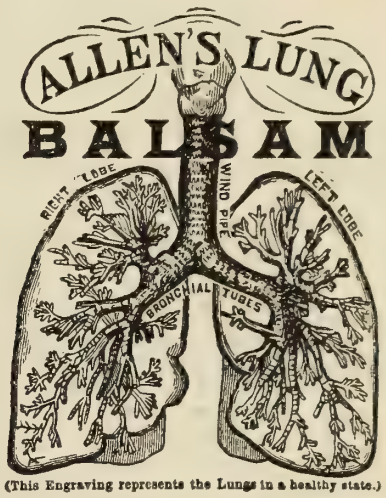

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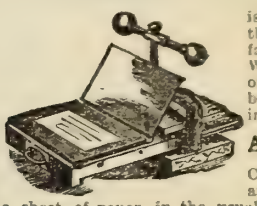

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Market Reports.

MONTREAL.

From our own Correspondent.

NOVEMBER, 8.—Merchants have been fully occupied filling up their yards for the winter, and the supply of nearly all grades is fair. The demand still keeps good for all kinds of lumber. There is beginning to be felt a scarcity of 1½ in. laths, the quotation for which is revised this week, there have been some enquiries made for them here for Ontario, but the order could not be supplied, Hardwood is in good general demand, and also cherry for local consumption. Ash is in active request both for local and United States account. Prices throughout our list are still firm and steady. We quote prices in the yards as under :

Pine, 1st quality, ₱ M.	$35 00@40 00
P ne, 2nd " ₱ M.	22 00@24 00
Pine, shipping culls, ₱ M.	14 00@16 00
Pine, 4th quality deals, ₱ M	11 00@12 00
Pine, mill culls, ₱ M.	10 00@12 00
Spruce, ₱ M.	10 00@13 00
Hemlock, ₱ M.	9 00@10 00
Ash, run of log culls out, ₱ M.	20 00@25 00
Bass, " " ₱ M.	17 00@20 00
Oak, ₱ M.	40 00@50 00
Walnut ₱ M	60 00 100 00
Cherry, ₱ M.	60 00@00 00
Butternut, ₱ M.	35 00@40 00
Birch, ₱ M.	20 00@25 00
Hard Maple, ₱ M.	25 00@30 00
Lath, ₱ M.	1 40@ 1 50
Shingles, 1st, ₱ M	3 00@ 0 00
Shingles, 2nd, ₱ M.	2 50@ 0 00

SHIPMENTS.

Shipping is pretty nearly closed for the season, there being only one vessel now in harbour to load. Since the date of our last report four vessels with lumber have cleared for South America, and one to Liverpool. Shipments from this port since the 25th ult., have been as follows : To Buenos Ayres, 649,209 ft, and to Monte Video, 1,142,998 ft. ; to Liverpool, 470 standard deals. The total shipments to the River Platte since the opening of navigation to date, was 21,232,886 ft., against 12,880,396 ft. in the same period of 1881, being an increase of 8,352,490 ft.

CORDWOOD.

Most of the cordwood barges have now arrived and the quantity is smaller than what has been usual at this season of the year, and there is very little coming in by rail. Prices on the wharf keep steady. There is a fair demand for long maples and the price is likely to advance, We quote ex cartage from the cars and on the wharf :

Long Maple	$7 50
Short "	7 00
Long Birch.	7 00
Short "	6 50
Long Beech.	6 50
Short "	6 00
Tamarack	5 00

TORONTO.

From our own Correspondent.

NOVEMBER, 9.—Since my last letter a brisk trade has been done over the docks, and the R.R. Companies, over whose lines the shipments of lumber has to pass, have been taxed to the utmost to supply the increased demand for cars, and it is quite impossible to obtain one-third of the number required for the western Ontairo trade. Vessel owners are now sharing in the general prosperity, freights having steadily advanced and now stand at $2.00 per M. to Oswego, and will doubtless continue to advance for the remainder of the navigable season. There has never been any doubt in my own mind for the last two months, as to our having a rushing fall trade, and my predictions in former letters are now being fully verified, and by the close of the season I think the total quantity shipped will exceed that of last season, and although the prices at present ruling cannot be considered as being low, yet, it is quite certain manufacturers will not be able to market the crop of 1883 at present figures, and leave them sufficient margin, owing to the increased cost of production, this I think may be taken as a settled fact, but unfortunately past experience proves that the unalterable law of supply and demand comes in and regulates prices irrespective of the wants or wishes of the lumberman. It is therefore much to be desired that the demand for the season of 1883 may be brisk. On visiting the various yards in this city I found most of the dealers in the best possible humor, and the only complaint I heard made was on account of not being able to procure sufficient dimension stuff of some kinds to meet the wants of customers, this want is more especially felt in the matter of 2x4 scantling and sawn lath, the latter will now command $1.60 per M. at the mills in bulk lots, and possibly just at the present time $1.70 might be obtained for a few millions. In former years few laths have been shipped to the American market, but the demand this year has been exceptionally good for shipment to American ports. If the present fine open weather should continue up to the end of the present month considerable lumber will yet find its way over the docks, and at the close of the year I will endeavour to give you reliable figures, or as near as it can be got at, of the entire quantity shipped from this port, but the quantity sold on the local market will be difficult to obtain, owing to the fact that only a few of the dealers keep accurate account of the quantities sold. Prices at the various yards remain at last quotations :

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths.	12 00
" stocks	14 00
Scantling and joist, up to 16 ft.	14 00
" " " 18 ft.	14 50
" " " 20 ft.	15 00
" " " 22 ft.	15 50
" " " 24 ft.	16 00
" " " 26 ft.	17 00
" " " 28 ft.	18 00
" " " 30 ft.	20 00
" " " 32 ft.	21 00
" " " 34 ft.	22 50
" " " 36 ft.	25 00
" " " 38 ft.	30 00
" " " 40 to 44 ft.	35 00
Cutting up planks to dry	22 50
" boards "	20 00
Sound dressing stocks.	18 00
Picks Am. inspection	27 00@30 00
Three uppers, Am. inspection	35 00@40 00

B. M.

1½-inch flooring, dressed	32 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅝ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	14 00
XXX sawn shingles, ₱ M.	3 00
XX sawn shingles.	2 00
Sawn Lath.	2 25

QUEBEC.

NOVEMBER 7.—Allan Grant's lot of white pine timber, containing about one million feet, is reported to have been sold at 28c. per foot.

The spruce deal market continues firm, for next season's sawing, The following sales have been made :—First quality, $40.50 ; second do., $33.50 ; third do., $24.50 ; fourth do., $20. All per Quebec standard hundred, with the usual shipping and half-culling charges. It should be stated that the above sale includes 20 per cent. of eleven inch board, a size decidedly prejudicial to the manufacturer, and which will account to a great extent for the strong prices obtained.

There is a rumour of a heavy sale of Hamilton's floated pine for next season's delivery, but the price and other details have not transpired.

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ₱ M.	$57 00@64 00
Pine, fourths.	57 00@59 00
Pine, selects.	52 00@54 00
Pine, good box.	22 00@35 00
Pine, 10-in. plank, each	00 42@00 45
Pine, 10-in. plank, culls, each	00 22@00 25
Pine boards, 10-in.	00 28@00 32
Pine, 10-in. boards, culls.	00 20@00 21
Pine, 10-in. boards, 16 ft., ₱ M.	30 00@35 00
Pine, 12-in. boards, 16 ft.	30 00@34 00
Pine, 12-in. boards, 13 ft.	27 00@29 00
Pine, 1¼ in. siding, select.	45 00@47 00
Pine, 1¼-in. siding, common.	18 00@20 00
Pine, 1-in. siding, select.	45 00@47 00
Pine, inch siding, common.	18 00@20 00
Spruce, boards, each.	00 00@00 16
Spruce, plank, 1¼-in., each.	00 00@00 20
Spruce, plank, 2-in., each.	00 00@00 30
Spruce, wall strips, each.	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each.	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each.	00 00@00 11
Ash, good, ₱ M.	40 00@43 00
Ash, second quality, ₱ M.	25 00@30 00
Cherry, good, ₱ M.	60 00@85 00
Cherry, common, ₱ M	25 00@35 00
Oak, good, ₱ M.	40 00@43 00
Oak, second quality, ₱ M.	20 00@25 00
Basswood, ₱ M.	25 00@30 00
Hickory, ₱ M.	40 00@40 00
Maple, Canada, ₱ M	28 00@30 00
Maple, American, per M.	26 00@28 00
Chestnut, ₱ M.	35 00@40 00
Shingles, shaved, pine, ₱ M.	0 00@ 6 50
" 2nd quality.	0 00@ 5 00
" extra, sawed, pine.	0 00@ 5 00
" clear, "	0 00@ 3 60
" cedar, mixed.	0 00@ 3 60
" cedar, XXX.	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ₱ M.	0 00@ 2 00
Lath, spruce, "	0 00@ 2 25
Lath, pine, "	0 00@ 2 50

BOSTON.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds.	33 00@35 00
Dressed Shippers.	27 00@29 00
Dressed Box.	18 00@20 00
Sheathing, 1st quality.	42 00@45 00
" 2nd "	34 00@35 00

BUFFALO.

We quote cargo lots :—

Uppers.	$46 00@48 00
Common.	18 00@19 00
Culls.	13 00@14 00

CHICAGO.

The *Northwestern Lumberman* of Nov. 4, says : The season's cargo business is beginning to taper off. For several days, up to last Thursday, the arrivals were very light, a half dozen cargoes being a fair average array at the docks, with only two or three, part of the time and a dozen being the most. The falling off was very marked, making the receipts the lightest of the season. On account of the low freight rates, many vessel men are taking their crafts from the lakes. With the receipts meager, there was naturally a free movement in what was offered. The cargoes were readily disposed of at firm and enhanced prices. Lumber and shingles have been in sufficiently good demand to take all that came, nothwithstanding there is plenty at the district. The cargoes have generally been placed in short order, the vessels that have lingered around the docks very long being the exception.

CARGO QUOTATIONS.

Short dimension, green	$10 50@11 00
Long dimension	11 00@15 50
Boards and strips, No. 2 stock.	12 25@14 50
No. 1 stock	15 00@22 00
No. 1 log run, culls out	17 00@23 00
Standard shingles.	2 60@ 2 65
"A"	2 70@ 2 95
Clear.	0 00@ 3 25
Lath.	0 00@ 2 25

STOCK ON HAND OCT. 1.

	1882.	1881.	1880.
Lumber.	660,118,942	541,763,015	467,966,545
Shingles.	265,189,150	241,455,200	173,753,000
Lath	52,267,802	38,333,925	48,755,681
Pickets.	3,368,270	2,788,430	2,193,317
Cedar posts.	161,719	211,048	67,006

OSWEGO, N.Y.

Stocks held here are larger than usual ; trade has been dull for the past two weeks ; prices of the coarser grades of lumber have declined from one to two dollars, which it is thought will work off the surplus. Lake freights have advanced from $1.00 to $1.75 from Port Hope which has had a tendency to check receipts.

Three uppers.	$42 00@45 00
Pickings.	32 00@35 00
Fine, common	20 00@25 00
Common.	14 00@16 00
Culls.	11 00@13 00
Mill run lots.	17 00@22 00
Sidings, selected, 1 inch.	30 00@37 00
1½ inch.	30 00@37 00
Mill run, 1x10, 12 inch.	16 00@21 00
selected.	20 00@25 00
Strips, 1 and 1½ inch mill run.	14 00@18 00
" " " culls.	10 00@13 00
1x6 selected for clapboards.	25 00@35 00
Shingles, XXX, 18 inch, pine.	4 00@ 4 40
XX, " "	3 00@ 3 40
XXX, 18 inch, cedar.	3 25@ 3 50
XX " "	2 30@ 2 50
Lath.	1 90@ 2 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers.	$43 00@46 00
Common.	18 00@24 00
Culls.	12 00@14 00

LONDON.

The *Timber Trades Journal* of Oct. 28, says : The shortness apparent in the pine and spruce stocks, as far as regards the outports, seems likely to be made up yet before the shipping season terminates, and the information to hand (to which we referred in our last) implies that large shipments of spruce are on their way, and though we do not anticipate there will be very large additions to the stocks in London, yet we often find November prolific in cargoes from the westward, the tail of the fall fleet generally dropping in towards the end of the year.

At Messrs. Churchill & Sim's sale on Wednesday there was nothing specially worth recording ; the prices were weak thoughout. Though the few spruce lots submitted went fairly well, still there was nothing like an advance traceable in what they fetched on this occasion when compared with recent sales. The intelligence of large stocks on their way may have had its influence on prices, though sale buyers do not in a general way look so far ahead. Should the spruce stocks be largely added to it, is very problematical if the fresh supplies would be immediately put under the hammer.

LIVERPOOL.

The *Timber Trades Journal* of Oct. 28, says : The prevalence of westerly winds has brought up a rush of timber-laden vessels during the past few days, and for a short time we may expect our quays to show a brisk and lively condition of business.

With regard to spruce deals, the railways and canals will have sufficient work to employ them for some time to come, as a large proportion of the cargoes, especially those from lower ports, will go to fill contracts and engagments entered into early in the season, and will in reality have little effect upon the stocks on hand, or affect in any way the future position of the market.

There is a fair business doing in all kinds of timber, and the last imports of Quebec goods are going into consumption steadily. From the latest advices from Canada, those who are chiefly interested in getting out timber and converting it into logs, deals, boards and other marketable shapes look for high prices for next season's wood ; the cost of labor, provisions and other expenses promise to be higher than have been experienced hitherto. This appears to be anticipated in a marked degree in reference to hardwoods of all sorts from the Canadian provinces.

GLASGOW.

The *Timber Trades Journal* of Oct. 28, says : The Clyde timber market has been firm during the week. As reported below an auction sale was held at Port Glasgow on the 19th inst. and one here on the twenty-fifth instant. These were well attended and a fair business done, A large cargo of Picton birch at the sale here was disposed of rapidly, with spirited bidding, prices ranging from 17½d. to 20½d. per cubic ft. The wood was of good quality.

Several cargoes of deals, Quebec pine and lower port spruce, have arrived at Glasgow within the week, and a cargo of Tabasco mahogany from Santa Anna, which is to be exposed at auction by Messrs. Wm. Connal & Co., in Yorkhill Yard, on the 7th prox.

NEW SAW MILLS AT EMERSON.

The Emerson *Express* says :—Besides the Emerson Agricultural Works, which is soon to pass into the hands of a joint stock company with a capital of $100,000, Belfour & Co. have commenced the erection of their extensive saw-mills, which are to occupy the whole block, including the river frontage between Morris and Dufferin streets. They have already delivered at their mills over six thousand saw-logs, which they will commence work on as soon as the machinery is in position. The capacity of the mill will be 20,000 feet per diem to commence with, but will be increased as the demand for lumber increases. The firm will give employment to twenty-five men. There is every prospect that the Government will, during the coming winter, remove the duties from lumber, which will give our saw mills the benefit of the markets of both countries. With the opening of the Pembina Mountain branch, there is but little doubt that the lumber supply for all Southern Manitoba will be cut at Emerson. This spring more than 12,000,000 feet of white pine from the Minnesota pineries was floated down the river in front of our doors, to be sawed into lumber in Winnipeg, and from the preparations now being made, it is estimated by Minnesota papers that fully twenty million feet of logs will be put down the Red River next spring.

MIDLAND.

The *Free Press* says :—The steam barge Tecumseh is loading 750,000 feet of lumber at the B. C. L. & T. Co's dock to be consigned to parties in that land of promise, Manitoba.

Mr. A. Paxton has secured the contract for building a large steam saw mill on Sepent River for the American Lumber Co., capacity 80,000 feet per day. A part of the work, we understand, is to be done in Midland.

BELLEVILLE.

The *Intelligencer* says :—If the predictions of those who are engaged in lumbering operations in this locality are fulfilled the prospects are the coming season will be unusually active. Thus early the advance parties of several firms have established quarters for operations during the winter and locations for work are now being sought after by others. Gilmour & Co. expect to perform some very lively work in the woods this winter and the force of operators they will send out will astonish the remnant of the aborigines who dwell in the woods. They will establish four shanties and give a show for nine live jobbers to make a substantial living by their work on Beaver Creek, north of Millridge, in the township of Tudor. Deer River will be more than lively, as three shanties and six jobbers will make it the scene of their labors. (Each of these parties will number 400 men.) Six shanties and eight jobbing gangs will operate on the "Scoot"; there will be one shanty in the township of Harvey, one in the township of Lake, near Clear River; one in Tudor, near the Moira River; one on the North River, in Methuen; and each will give employment to fifteen men. The cut will come to the front by the Trent and Moira Rivers, and will embrace 300,000 logs, besides ash, cedar, tamarack, spruce, and floats. The product, it is confidently expected, will be as large as that of 1881.

FORESTS REPRODUCED.

Many people entertain the idea that remuneration for forest culture during the lifetime of the persons engaging therein is an impossibility, but facts are frequently furnished which demonstrate that this idea is incorrect. In illustration the following from a Virginia correspondent is quite pertinent: "We would like to have some of the forestwise people—wise from a European, but not from an American standpoint—who are croaking about the destruction of our forests, and predicting that we will have a treeless country in a short time, see how rapidly and how beautiful Culpepper and other counties along the Virginia Midland, that were almost deforested during the late war by the great armies that camped and wintered there, are now becoming afforested in the lifetime of half a generation. We noticed a few days ago fuel and fencing being cut where Mead's army burned up every tree in the winter of 1863-4."

GOVERNMENT PROTECTION.

The commissioner of the general land office at Washington has issued a circular to the timber agents throughout the country, instructing them to protect public timber from waste and destruction by fire, by every means in their power. It refers especially to the danger arising from leaving tree tops and branches to dry upon the ground after the timber has been removed, and closes with the following significant sentence:—"A failure on the part of woodsmen to utilize all of the tree that can profitably be used, and to take reasonable precaution to prevent the spread of fires, will be regarded by this office as wanton waste, and subject them to prosecution for wanton waste and destruction of public timber." If the instructions be complied with, much good will result and forest fires, on government land at least, will decrease both in number and destructiveness.—*The Lumber World.*

NORTHERN LIMIT OF THE HEMLOCK.

The Abbe Provanche, in his *Flore Canadienne*, corrects an error in the statement of Michaux, and copied by the Abbe Brunet, concerning the northern limit of the hemlock tree. In the pamphlet entitled "*Voyage d' Andre Michaux en Canada*," p. 18, it is remarked, that this tree begins near the Hudson Bay, and that around Lake St. John it forms whole forests. The writer cited affirms that he has never met the "Pruche" in those regions, and that it is wholly unknown both on Lake St. John, and on the Saguenay. He assigns its northern limit at Cape Tourment, north of Quebec, although a few specimen may occur in Charlevoix county.

According to Dr. Bell, (*Geographical Distribution of the forest trees of Canada*), the eastward and northern limit of this species is at the Bay of Chaleur. It is scarce near the eastern coast of New Brunswick, but very abundant in the northern part of Nova Scotia. It crosses the St. Lawrence a little below Quebec, extending further down on the north than on the south side. Thence it reaches the north end of Lake Temiscaming, and the eastern extremity of Lake Superior at Agawa, south of the Michipicoten River. On the south shore of Lake Superior it does not reach the western extremity but turns southward in the neighborhood of Ashland. An outlying grove is mentioned at Thompson, about 25 miles west of Duluth. The hemlock maintains a good size, to the verge of its range, and always appears to terminate abruptly.—*American Journal of Forestry.*

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A TIMBER SUIT.

The following case was decided at the recent assizes at Barrie, according to the report of the Midland *Free Press*:—Prentiss v McGirr. The Omtario Government sold some land to the Dominion Government on to which the Oka Indians were removed from the Province of Quebec. Prior to this sale the Ontario Government had sold the right to cut all the timber to the Georgian Bay Lumber Company, who, in turn, sold their right to Mr. Prentiss, the plaintiff in the present action. Mr. Prentiss, not thinking that anything was wrong, put in a gang of men last winter, who cut a considerable quantity of timber. As the men were about to draw it away the defendant, who is one of the officials connected with the Indian Department, forbade the removal of the timber, which was seized by the Dominion Government as belonging to the Indians. The plaintiff failing to get redress from the Dominion Government, brought this action against their official, who prevented the timber being taken away. His Lordship, at the conclusion of the plaintiff's case, nonsuited, holding that the defendant only acted as ordered by the Department, and could not therefore be held responsible personally. Plaintiff's remedy, if any, would lie in a petition of right or in the justice of the Government. Strathy for plaintiff; Martin Q. C., for defendant. This case seems to be a hard one, as the plaintiff expended a large sum in the manufacture of the timber which is now lost to him.

Increased Use of Sawdust.

The *Northwestern Lumberman* says:—A large amount of sawdust is being used in a profitable industry, which, if it grows in the future as it has in the past, may solve the Minneapolis problem, and cause the St. Paul Chamber of Commerce to eternally hold its peace. Boxes, of all sorts of sizes, containing sawdust, are daily sent out all over the country, and sometimes there is tall kicking on the part of the recipients, who paid their money for something else. The secret of the transaction is that the sawdust crowd answered a counterfeit money advertisement, and got sold, and, considering their design, they have little to kick about. If the fools continue to increase, an immense amount of sawdust will be required for this one line of enterprise,

JONES & SON,

Wholesale Lumber & Timber Dealers

39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut

And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.

Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.

17

Flexible Veneers.

A recent chemical treatment of veneers has been successful in London, it is said, whereby the veneer can be made supple as leather and of less than the usual thickness, while the strength and beauty of the wood are unaffected. The veneer thus prepared can be used with the utmost ease and safety on the most elaborate workmanship, bending around the most acute angles and most intricate curves. They do not need any pressing by mechanical methods or conforming with hot irons, a simple laying on with glue and hand pressure being all that is required.

ONE dose of Baxter's Mandrake Bitters will relieve Sick Headache. One bottle effects a cure. Price 25c. per bottle.

MR. J. R. SEYMOUR, druggist, St. Catherines, writes that he finds an ever-increasing sale for Burdock Blood Bitters, and adds that he can, without hesitancy, recommend it. Burdock Blood Bitters is the grand specific for all diseases of the Blood, Liver and Kidneys.

DEAFNESS that is caused by colds, inflammation of the membrane of the ear, and Earache, is often cured by Hagyard's Yellow Oil, the great external and internal remedy for all Pain, Soreness, and Inflammation, Rheumatism, Burns, Scalds, Frost Bites, Sore Throat, Croup, Contracted Muscles, etc. Never be without it.

$500 Reward!

We will pay the above reward for any case of Liver Complaint, Dyspepsia, Sick Headache, Indigestion, Constipation or Costiveness we cannot cure with West's Vegetable Liver Pills, when the directions are strictly complied with. They are purely Vegetable, and never fail to give satisfaction. Sugar Coated, Large Boxes, containing 30 Pills, 25 cents. For sale by all Druggists. Beware of counterfeits and imitations. The genuine manufactured only by JOHN C. WEST & CO., "The Pill Makers," 81 & 83 King St. East, Toronto, Ont. Free trial package sent by mail prepaid on receipt of a 3 cent stamp. w46d12t22

PATENTS

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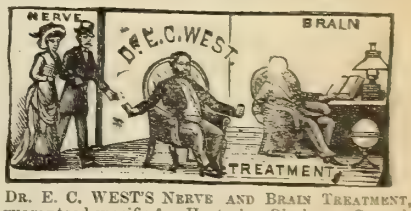

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DISASTROUS FIRE.

OTTAWA, Nov. 2.—The most disastrous fire which for years has visited the vicinity of Ottawa occurred this evening, and in the course of three hours laid in ashes nearly $1,000,000 worth of property, temporarily thrown over 1,000 hands out of employment, and for a time destroyed industries which have taken over a quarter of a century to build up. Among the many hard-working men who have converted wooded wastes about the "Big Kettle" into a hive of industry, who in most cases starting unknown and with comparatively little capital to back them, but who with undoubtable energy and untiring perseverance have built up the lumber interests of Ottawa and Hull, it is no discredit to the others to say that she name of E. B. Eddy stands in the front rank. His name for years past has been identified with the best interests of Ottawa and Hull, and no misfortune which overtakes the vast industries which he controls can fail to be felt by the whole population. The fire alarm sounded last evening at 6:11 from box 21. This is one of the boxes considered dangerous by the brigade, and the whole force at once turned out. When the alarm was first heard there was no sign of any particular danger. It was also a time when most persons were at their supper, and as the public are now pretty well used to see the fire drowned out in a very few moments, little attention was paid to it.

In less time, however, than the reels could reach the point indicated, a bright light spreading over the whole north-western sky indicated that a more than ordinary blaze was in progress. In less than ten minutes from the time the alarm was first given the ruddy glare was so bright over the whole city that the smallest print was easily readable in the worst lighted streets. The exact locality of the fire was not known, and in Ottawa was first discovered by those who flocked to vantage points on Victoria street and the Government Hill. Then the news spread lightning-like, "Eddy's is on fire," and soon a stream of pedestrains and vehicles were rushing to the scene of the disaster. Those from the centre and lower portion of the city, no matter how raid their progress, only reached the place in time to find the suspension bridge and the Hull causeway crowded with anxious spectators, while around the burning building hundreds of hardworkers crowded, doing their best to fight the unconquerable fire which raged with fearful fury from the outset. From one to another of the great area of the factory buildings the flashing tongues of flame leaped laughing at the puny efforts of the poor streams to stay their progress, and in less than an hour some ten acres of ground were covered with the *debris* of what had in the early part of the evening represented a handsome fortune. Such a rapid destruction of property has probably never been seen about Ottawa before, not even on the wild windy Friday night when the villages of Bell's Corners and Chelsea were swept away, when the fire devastated the whole Ottawa valley.

It was not possible to ascertain the origin of the fire this evening. Those who were best able to speak about the matter were too busy at work to give any reliable information. It is, however, pretty certain that it originated in the north-western part of the large saw-mill. At present the mill is only running day time, and all hands had left at six o'clock. There was no light about the place but what was furnished by electricity, and the general opinion is that it was by friction. The rapid spread of the fire was almost incredible. The big mill was almost instantly in flames. From that the fire spread in every direction, taking in the stone offices on one side, and the sash and door factory and the pail factory, and other building on the other. It next licked up the woodon arch which spanned the causeway, and laid hold of the match factory, all of these falling victims to the fury of the flames.

The Union Fire Company turned out and did excellent service. One of the firemen remained so long on the second story of the match factory that he had to leap for his life, and broke one of his legs. Many others had narrow escapes. All the water that could be reached was utilized, but it was insufficient to stay the fury of the flames. The fire burned itself out westward, while the efforts of Eddy's own appliances, the Chaudiere fire-engine, of Ottawa, and all the other appliances that could be had from the various lumber men, kept it from spreading eastward. Had the wind been blowing southward the probability is that not a house would be left standing in Hull. In addition to the buildings already mentioned being burned, McCormick's flour mills were also destroyed. The loss is generally estimated at from $500,000 to $700,000. It is partilly covered by insurance. Mr. Eddy, who has been ill for some time past, is at present in Boston. The fire at the time of writing (midnight) is still burning, but entirely under control.

Mr. Eddy's loss will in all probability reach $750,000, on which there is said to be an insurance of $225,000. Mr. C. B. Wright owned the flour mill. He estimates his loss at $30,000, on which there is an insurance of $4,000. The occupants of the mill, McCormack & Co., lose about $7,000 ; insurance, $3,000. Mr. Eddy has been very unfortunate during the past six years, suffering extensively from fire, but through undauntable pluck and energy has succeeded in keeping his head above water. Within that time he has wiped out a liability of over a million dollars ; and this year, had he been fortunate enough to carry out his programme, would have placed half a million dollars to his credit. Much sympathy is felt for him, and the feeling prevails that he will at once commence rebuilding.

THE INSURANCES—THE ANTICIPATED LOSS.

The Montreal *Witness* says :—The fire at Hull has created a good deal of excitement here. The following is a list of insurances on the Eddy property :—

Royal	$ 33,000
Fire Insurance Assqciation	22,000
The Ætna	16,500
The Hartford	16,500
British American	11,000
Commercial Union	11,000
Royal Canadian	11,000
The Queen	11,000
North British & Mercantile	11,000
German American	11,000
Citizens	5,000
Quebec	5,500
Niagara	5,500
Connecticut	5,500
	$176,000

The larger amounts are well re-insured. The insurance companies do not anticipate a loss of over sixty per cent of the above amounts. About half the property was burnt. The west half on which stands the match factory was simply injured.

Incendiarism is supposed to have caused the fire. The managers suspect a certain individual who was discharged a short time ago for stealing. Incendiarism suggests itself by the fact that the fire burst out in a place convenient to the public highway and at the time when there were few men around the premises. It was also a dark night and the watchman was in the other mills a quarter of a mile distant. Word has been received to-day that Mr. Eddy is lying sick in Boston.

Wooden Water Pipes.

In an account given in the London *Daily Chronicle* respecting the recent opening of the first portion of the innercircle extension of the Underground Railway, the writer says :—"Not the least interesting feature was the antiquarian discoveries which have been made. Besides a a singular collection of Roman pottery and other things, a large portion of the old London wall was found between the Crescent (in the Minories) and Trinity Mews. The wall was 8 feet thick, composed of Kentish ragstone, and gave the employees no little trouble. Among the *debris* lying near the shaft in Trinity Gardens was a piece of rotten timber about a yard and a half long. On examination this proved to be a portion of the wooden piping first used by the New River Company early in the seventeenth century."

Tree Planting.

In the season of 1881-2 more than 3,000,000 trees were planted in Great Britain, out of which number Scotland claims about 2,000,000, England 600,000, Ireland 300,000, and Wales 40,000,

QUEBEC.

The *Chronicle* says :—Timber transactions are about drawing to a close. The shippers here having pretty well stocked themselves. But the few rafts remaining for sale are held at good prices. A raft of white pine, of about 52 feet average, was placed at 27 cents ; 47 feet at 24 cents, and a large parcel of 47 to 48 feet average, at 29 cents. A choice parcel of waney board, and two or three other rafts, have also changed hands at prices which have not yet transpired.

Red pine is rather dull of sale, common and ordinary being worth about 14 to 16 cents. Good and Superior 17 to 18 cents, in the raft.

Oak is in good demand if of choice quality ; but inferior wood is difficult of sale.

We hear of no sales in elm.

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c. measured and culled to Oct. 27 :—

	1880.	1881.	1882.
Waney White Pine..	2,180,389	2,637,935	2,786,325
White Pine	3,992,168	5,604,356	7,680,997
Red Pine	1,019,909	1,906,252	1,446,574
Oak	1,566,078	2,756,659	1,149,452
Elm	932,950	1,010,395	701,026
Ash	238,416	399,625	263,481
Basswood	363	3,939	1,348
Butternut	645	2,991	2,639
Tamarac	30,863	24,577	51,798
Birch & Maple	575.464	151,742	268,333
Masts	4 pcs	— pcs	33 pcs
Spars	23 pcs	25 pcs	51 pcs
Std. Staves	195.7.1.1	368.7.2.29	352.6.3.12
W. I. Staves	485.4.1.5	467.6.0.10	1150.9.0.12
Brl. Staves	10.8.2.10	.....	75.4.3.23

JAMES PATTON,
Quebec, Oct. 27. Supervisor of Cullers.

A Windfall.

The library of Cornell University received, not long ago, by the will of a friend an estate which at the time was believed to be of only moderate value. It was found, however, to be chiefly invested in Wisconsin pine lands, and turns out, at the present price of such property, to be worth something over $2,000,000 in hard money. This is an addition to the $5,000,000 that Cornell has derived, or will derive, from the sale of her scrip pine lands in the same state.

Advertising by the Car Load.

The Wisconsin Central railroad management is collecting a car load of samples of northern Wisconsin timber, gathered from points on the line from Stevens Point north. The car will be sent through southern Wisconsin, Illinois and other sections, and the samples exhibited at manufacturing towns for the purpose of showing what varieties of timber can be found in northern Wisconsin. The scheme will be under the direction of A. J. Perkins.

New Forests.

Several small prairies, which were common in the Wabash Basin at the time of its first settlement, have been transformed into woodland, and the area of the forest has increased of late years. Extensive woods of oak and hickory, more than 80 ft. high, and with trunks nearly 2 ft. through, are now growing upon what was open prairie within the memory of some of the present owners of the land.

BAXTER'S MANDRAKE BITTERS never fail to cure Costiveness and regulate the Bowels.

SURE, safe and effectual, that old remedy, Downs' Elixir, for the cure of Coughs and Colds.

A NERVE and brain food is needed in all cases of nervous and sexual prostration. Mack's Magnetic Medicine meets this want more effectually than any other preparation, and the price brings it within the reach of all. Read the advertisement in another column.

MRS. B. M. GIFFORD. of Port Rowan, was for many years a sufferer with liver complaint and a serious complication of diseases. In a recent letter she says she has only taken two bottles of Burdock Blood Bitters, and has nearly recovered her health, and authorizes us to use her name in advertising to suffering humanity.

BEST OF ALL.—Our rigorous and changeable climate and our mode of life induces frequent colds that often lead to severe coughs, bronchitis and other lung troubles that are liable to end in consumption. The best and most pleasant remedy for these difficulties is Hagyard's Pectoral Balsam, to be obtained of any druggist.

ST. JACOBS OIL
TRADE MARK.

THE GREAT
GERMAN REMEDY.
FOR
RHEUMATISM,
Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,
Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

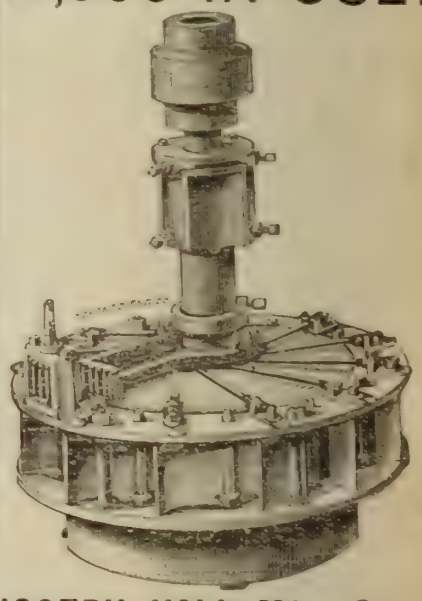
No Preparation on earth equals ST. JACOBS OIL as a *safe, sure, simple* and *cheap* External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

Directions in Eleven Languages.

SOLD BY ALL DRUGGISTS AND DEALERS IN MEDICINE.

A. VOGELER & CO.,
Baltimore, Md., U. S. A.

15,000 IN USE!



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Double Turbine Water Wheel,

All Sizes of Stationary and Portable Engines and Boilers, Shafting, Pulleys, Hangers, Gearing, latest improved English and American Gangs.

The Stearn's Circular Saw Mills with Fractional Head Blocks and King of Dogs—this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Specialty.

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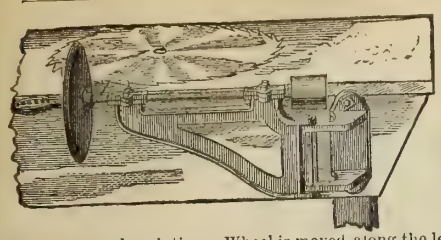

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HODGSON'S Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,

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Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills

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ROBERTSON'S LIGHTNING CANT-DOG

STEEL RING,

The Lightest, Cheapest and Most Durable Cant-Dog in the World.

PETER ROBERTSON,

Chaudiere - - - Ottawa.

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Four (4) Medals and Three (3) Diplomas awarded to them in 1881, by the Leading Exhibitions of the Dominion.

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AMERICAN HEAVY Oak Tanned Leather Belting

Rubber Belting, | Rubber Packing,
Rubber Hose, | Linen Hose,
And Cotton Hose.

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594, 596, 598, St. Joseph St.

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Represents
No. 5 20-Horse Power
FIRE-PROOF
CHAMPION
SAWMILL
ENGINE
WITH
SECTIONAL
SAFETY
BOILER.

Build 4 Sizes Fire-Proof Champion Engines

6 H.P.
12 H.P.
16 H.P.
20 H.P.

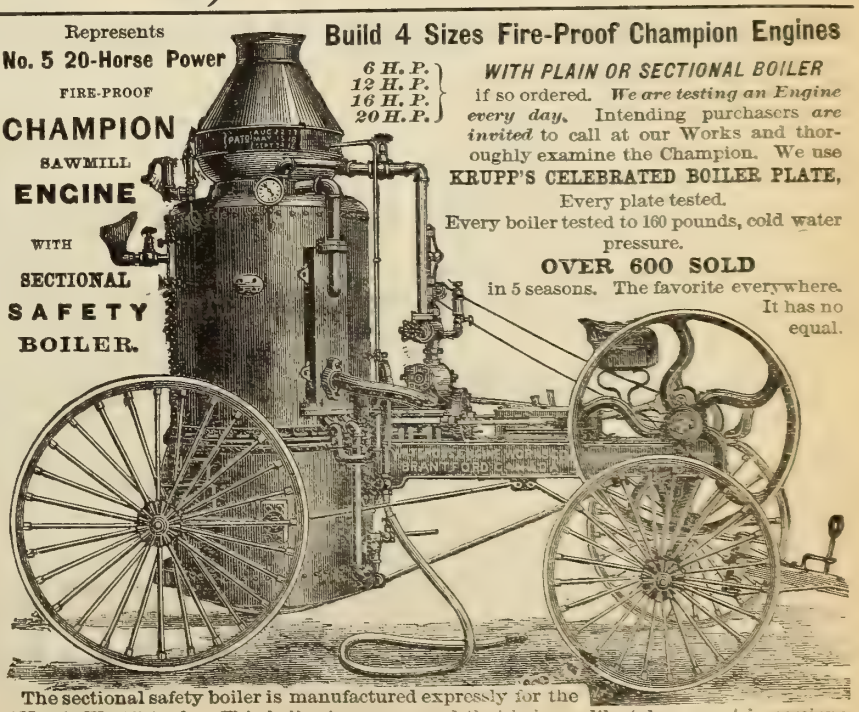
WITH PLAIN OR SECTIONAL BOILER

if so ordered. *We are testing an Engine every day.* Intending purchasers *are invited* to call at our Works and thoroughly examine the Champion. We use **KRUPP'S CELEBRATED BOILER PLATE,** Every plate tested.

Every boiler tested to 160 pounds, cold water pressure.

OVER 600 SOLD

in 5 seasons. The favorite everywhere. It has no equal.



The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. *We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies.* Largely used by the Pacific Railway Company and all the large Colonization and Ranche Companies.

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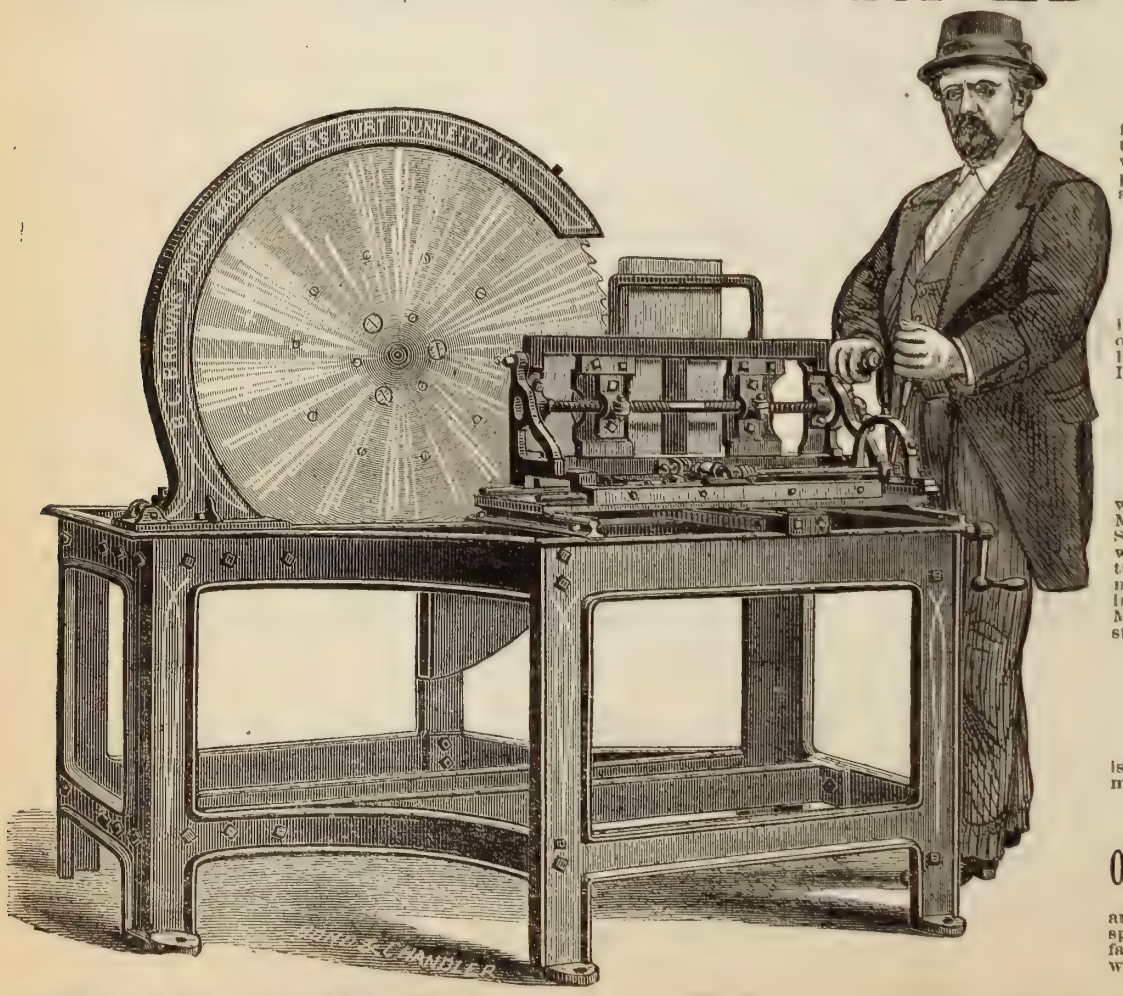

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are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.

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THE TRUE REGULATORS.

WHILE we cannot but regret, in the interest of our own St. Lawrence route, that the people of the State of New York have declared in favor of free canals, and that as a consequence all tolls on the Erie Canal will at once be abolished, yet we cannot deny that the decision at which they have arrived is eminently in their own interest and that of the people of the north western states, and, to a certain extent, in the interest of the producers of lumber and barley in Ontario. As our readers are aware, the REVIEW, even when it was laughed at for so doing, maintained that the best if not the only satisfactory regulator of freight rates was our water ways, and the events of each succeeding year have only served to confirm this conviction and to prove that those who are most intimately concerned in this matter are coming more and more to the same way of thinking. Certainly in adopting an amendment to their constitution providing for free canals the people of the empire state and the chief commercial city of the continent, have given the most substantial evidence in their power, and that too, in spite of the opposition of their powerful railway corporations, that they are of the opinion that the water ways are an important, if not the best freight regulator. In Great Britain too, we find the same feeling gaining ground, notwithstanding that country has more miles of railway to the square mile than any other country in the world.

During the last or rather present session of the Imperial Parliament a select committee was appointed to enquire into the subject of railway rates and fares, and as a result of their investigations they presented a report recommending among other things "That Parliament do not sanction any further control, direct, or indirect, of canal navigation by a railway company."

To understand, and fully appreciate this recommendation, it is necessary that the reader should bear in mind that nearly all the canals of that country are at present leased to, and worked by, those railway corporations with whom they competed, and that if the recommendation of the committee be acted upon the canals will return to their natural and proper position of competitors with the railways for the carriage of heavy freight as soon as the present leases expire. That such a result would have a beneficial effect upon freight rates cannot be doubted, seeing that the railway companies in order to secure control of them have leased them at rentals which pay the owners thereof higher dividends than the railways pay their own stockholders, and that they (the railways), find it profitable to maintain these canals even where they run side by side with their own lines.

Under circumstances such as those to which we have just referred, we need scarcely say that we hold it to be the duty of our statesmen to avail themselves of every available opportunity of developing and improving our water ways whether they be in our older or newer provinces.

While a "free" Erie is no doubt calculated and intended to injure the St. Lawrence route, we have little fear of the ultimate result now that our own inland and natural competitor with the Erie Canal is fairly under way under the name of the Trent Valley Canal. Taken in conjunction with the recent action of the State of New York, and in conjunction with the deplorable results which have followed the attempt to use vessels adapted to the wants of the Welland Canal on our great lakes, it is clear that it is the duty of the Dominion Government and Parliament in the interests of humanity, as well as of the St. Lawrence route, to push the Trent Valley Canal on to an early completion. —*Peterborough Review.*

FOREST FIRES.

The *American Journal of Forestry*, the first number of which has been published at Cincinnati, contains an interesting paper on forest fires by Mr. Putman, of Wisconsin, which, it is stated, was written for the forestry Congress, but delayed, owing to the absence of its author on the Pacific Coast. The forest fires in Michigan, Wisconsin and Minnesota, are said to be the results mostly of carelessness on the part of explorers, or timber hunters, haymakers and others having either business or pleasure in the woods, who leave their camp fires burning, where they have cooked a meal or spent the night. July and August are the months in which they generally occur, when the pine leaves and branches from the last winter's cutting are dry and like tinder liable to burn from the dropping of a match or a stroke of lightning. The author of the paper thinks it absolutely necessary that proper laws should be passsed and enforced for the punishment of this criminal negligence, and does not believe that it would be hard to detect offenders. Most men, he says can be traced even in the pineries, and if fires result from their acts they should be punished by imprisonment or fines. The practise of lumbermen is, when the tree is felled, to cut off the branches, which are left scattered on the ground and in the following summer become dry and like powder. A match thrown away, an emptied pipe, in fact anything with a spark of fire, will start the burning. It is suggested that there should be a law requiring the lumber men to employ an extra man in the woods to pile in an open space the green branches and refuse, so that all may be burned at a proper time. The opinion of the author is that the fires are not the result of carelessness of the Indians, who are careful to extinguish their campfires. He advocates the appointment of foresters, to collect and distribute information and advice as to the manner of cutting timber. Probably as much timber or as many trees in number are destroyed each year through ignorance and carelessness in cutting the pine timber for sawlogs as are cut and really used or taken to market. The author states that he has recently visited the forests on the Pacific coast, and finds there more danger from fires than in Minnesota, Wisconsin and Michigan. Terrible fires, he says, are raging on Puget Sound, Coast Range and Cascade forests. He saw one of 100 miles by 10, and of 75 by 2 to 20 miles in extent, all the result of pure carelessness, and which might have been prevented. He thinks that 1,000 trees may be saved where one can be raised, and after 30 years' experience in forests he thinks that if he had educated his timber explorers to be careful of fire he could have saved millions. Such is the information given by a Wisconsin lumberer.—*Lumberman's Gazette.*

THINNING OUT TREES.

Henry Hemming, Esq., Quebec, contributed the following to the Forestry Congress, Montreal :—"As I do not see upon your programme of subjects to be discussed, any reference to the important question of "Thinning out Forest Trees" at various periods of their growth, I write in the midst of other engagements just to call your attention to its importance. In a pine forest, if the trees are placed so wide apart as to admit of the branching out to begin low down on the stem, you will get a collection of ornamental trees, but not a real timber tree amongst them. On the other hand if the trees are grown in a plantation so thickly that the ground is encumbered with five or ten in the space that one ought to occupy and yet be sufficiently confined to be restrained from side-shoots—in this case also you have no timber forest, but are only growing firewood. Now, I have an impression that this subject has been pretty thoroughly studied in the great timber producing countries of Europe. It is certain that there they have an extensive literature on forestry of which we hardly know the names in North America. Between giving the trees room and restraining them from lateral branching, the degree of "thinning out" is brought to something of a nicety. Properly effected, the productiveness of our forests might be multiplied many times over. Even the cutting of good trees by the lumberman does not thin out effectually. Nothing will do that but chopping for the very purpose in view at various steps of the growth of the plantation. What are those periods? How many "thinnings" in all will be made? I am quite unable to reply to those questions, but the Congress, in its stores of forest knowledge, may be able to help on a solution."

SEVERAL lumber-millowners have been prosecuted for throwing slabs and other refuse in the St, John River, New Brunswick, and have been fined $20 each.

TIMBER FOR RAILROAD USES.

The moisture of the soils in the South, says the *National Car Builder*, is very destructive to woods employed as the bed for railway track, and managers have been troubled to known what is the most economical method for obviatting loss resulting from this cause. Creosoting has been resorted to. Several works with large capital have been established in St. Louis for the treatment of wood by the creosote process, and in Texas the treatment has been applied along the lines as construction was pushed forward. This method, however, is considered rather too expensive. Some railway men have concluded that the ailantus and catalpa will prove to be the cheapest and most durable wood for tie and bridge timbers. One company, whose road extends chiefly over prairie lands, is having a large plantation seeded for these trees in equal proportions. Both the catalpa and the ailantus are readily propagated from the seed, and bear seed-pods abnndantly. Another company, whose road enters Texas, is arranging to plant several hundred acres of these trees in that state. Even the Iron Mountain Company, that probably owns more heavily timbered land than any other in the country, has contracted for the cultivation of a catalpa farm near one of its stations in Missouri. On this road are catalpa ties that were laid nearly 15 years ago and are apparently as sound as ever. It is authenticated that in southern Ohio, where one species of catalpa is indigenous, there are posts and timbers of this wood that have been in the ground a full century and yet show no signs of decay. Although the ailantus is an importation from China, still it and the catalpa seem to find in the soils of Missouri, Arkansas and Texas just what they require to thrive upon.

A Rush for the Woods.

The St. John, N. B., correspondent of the Montreal *Gazette* says :—The rush for the woods is greater this fall than it has been for years. Every train that goes up the St. John towards the lumber regions of that part of the Province carries supplies, men and teams, bound for the forest, and there is equal activity on the north shore. This is not because of a scarcity of logs, as the stock is not yet exhausted. Last winter was an exceptionally good one for hauling, there being plenty of snow and fast-frozen swamps, and the stock was large at the beginning of the season for sawing. The production of lumber has been very large, as all the mills have been run constantly, many of them day and night. Some of our mills are preparing, by the accumulation of logs, to saw during the winter, as the prospects for good prices next spring are considered favourable. Mr. Gibson, the King of the Nashwaak, will have a regiment of men and horses in the woods, and several other heavy operators will have a large force there.

FORESTRY.

The following sensible editorial appears in the Stratford *Beacon* from the pen of Dr. A. Eby, of Sebringville, in the county of Perth :—

"The recent meeting of the Forestry Congress brought out prominently some facts that should receive the serious consideration of the people of this province and of our Government. The first point that we wish to bring out is that the timber supply of this continent is nearly exhausted, At the present rate of cutting, it is estimated that the pine timber now standing in the different states and provinces will last as follows : Georgia, 75 years ; Florida, 30 years ; Alabama, 70 years ; Mississippi, 150 years ; Minnesota, 10 years ; Michigan, 7 years ; Wisconsin, 20 years ; Louisiana, 540 years ; Pennsylvania, 5 years ; Arkansas, 325 years ; California, 100 years ; South Carolina, 27 years ; Maine, 16 years. At the present rate of consumption only six of these states have a practically inexhaustible supply, but when we consider that the total production is 3,623 million feet annually in the United States alone, and divide that into the 264,759 million feet, estimated total of standing timber, we find that even at the present rate of consumption it will all be exhausted in 70 years. As it will take at least 70 years to grow a new crop, it will be seen that the total amount of timber now standing is only sufficient to last until a new crop can be grown, if it is planted at once, but if planting is delayed for a few years a scarcity will ensue before some now living will be gathered to their fathers.

Let us now look at Canada and its supply. According to Mr. Ward, of Montreal, who is doubtless well informed on the subject, Canada has 50,000,000 acres of timber standing. This according to the present rate of cutting, will last us 50 years. But we must not forget that the demand both in Canada and the United States will be immensely increased within the next ten years. The new settlements in Canada hitherto obtained the supplies from local sources. Within even the last decade immense quantities of pine have been exported from the older settlements of Ontario, but these resources are nearly, if not entirely, exhausted, and lumber will soon have to be carried to districts that formerly exported it. Take the township of Ellice. Hitherto there were in it eight or ten mills running the greater part of the summer, but the supply is now practically exhausted, and that township will have to import more lumber in the next 20 years than it exported during the last decade. There are many other places in the same position. They will have to draw their supplies from the great public forests instead of getting them from local sources as heretofore. But while the older provinces had local supplies for the most of their wants, such is not the case with the provinces now being settled. Manitoba and the Northwest will require more lumber than all the rest of Canada has standing. Even sparsely settled as it is, lumber is even now carried from Montreal to Winnipeg. What will be the demand when the settlers will once be able to erect permanent dwellings for themselves and stables for their cattle? But while the demand in Manitoba will increase immensely, that of the older sections of the country will not diminished, so that we may well calculate that instead of the present supply lasting 50 years it may last from only 30 to 35 years.

The same holds good for the United States. States like Michigan, Minnesota, Pennsylvania and even Maine, will in a few years have to import instead of exporting as they do at present. Then the immense settlements that are now taking place on the treeless prairies of Dakota, Nebraska, Kansas, Texas, and other States and territories will increase the present enormous demand. Taking all this into consideration, we may well ask if the present supply will last 50 years instead of 70 years.

This is a matter of serious consideration, not the less so because the evil is remote and will not be materially felt by the present generation. It will come as certainly as time goes on. Though the evil will not strike the present generation, it is its duty to provide for future necessities. Many municipalities are incurring heavy liabilities on the principle that the next generation should assist in paying for improvements of which it will reap the benefit. So this generation, while it uses the timber of natural growth, owes it to future generations to prepare a supply for them. It is our duty to increase instead of diminish the chances of life to our successors. It ill becomes our wisdom and foresight to live on regardless of the future, it is our duty to provide for the future, knowing that if we ourselves shall not reap the havest others will. Men lay up wealth not because they take the money with them when they go hence, but as a store for their children. In the same way we should prepare a supply of fuel and timber for future generations.

But while this holds good for individuals it is especially true of Governments. Governments have no end. The king never dies. One Ministry may be succeeded by another, yet it is the same Government. The aim and object of the Government should be the welfare of the country as a whole, not of any particular section of it, nor at any particular period, but its continued welfare. When the Government makes an improvement it should be so made as to be permanent. So the Government should prepare for the welfare of its future citizens as well as those of the present day. It is the duty of the Government to see that the resources of the country are not wasted and the chances of life and happiness of its future citizens are not endangered or made unnecessarily laborious.

It has been the experience of Europe that a supply of timber can be best secured under the control of the Gevernments. While each individual strives to benefit himself, the Government has no selfish or personal object to serve. While individuals cannot expect to reap the fruit of a planting or seeding that requires 50 or 100 years for its growth, such is not the case with the government. It can as certainly reap the harvest in half a century as in five or ten years. The Government alone can afford to wait the time necessary for the harvest and when its forests have once been put in order and the harvest time comes it can reap a rich revenue for its foresight. It will be a continued seeding and planting for many years to come, but when the harvest is once reached it will be as continuous a harvest as the seeding had been. Governments only can exercise the necessary oversight and control of so large forests as will be required to keep up the necessary supplies.

We will not undertake to say just what our Government should do in the premises, but we will point out what ought to be done. There are large tracts of country in different parts of the province that are practically unfit for agricultural purposes. Wherever such lands can be obtained at a low price they should be secured by the Government, where they are not already the owners, and take measures to have them planted with some suitable, valuable timber. To do this properly will require the organization of a forestry department altogether apart from the Crown Lands Department. To the forestry department all rocky, barren lands unfit for agricultural purposes should be turned over to be managed as public forests. Such as are already covered by forests should be put under such regulations as would best answer the purposes of revenue and the conservation for future use. Such as have been denuded either by the lumbermen, by fire or otherwise, should be reseeded or replanted as soon as possible and be kept under the supervision of properly trained foresters. This would doubtless increase the expenses of the Government, but it would be investing money in such a way as to return a good revenue in the future. A moderate outlay in this way will bring a sure return in the future. While we believe the Government is acting in the interests of the public by selling the leases of its forests to the highest bidder, it should also take the necessary steps to keep up the supply. Full grown trees do not increase in value by letting them stand. They should be removed to give room for fresh timber to grow. Care should, however, be taken that young and growing trees are not removed or damaged.

THE Orillia *Packet* says :—Mr. James Hadden, lumber and shingle manufacturer, at Foxmead, on the Midland Railway, is building a tramway from his mill to the timber limits. Mr. Hadden will not be dependent on snow for his stock.

THE COLLECTION OF AMERICAN WOODS AT THE CENTRAL PARK MUSEUM.

The Directors of the American Museum of Natural history are now preparing for exhibition in the arsenal building, in Central Park, one of the finest collections of native woods ever brought together. When rendered complete by the addition of 26 specimens that are expected to arrive before winter sets in, the collection will embrace specimen blocks from each of the 420 trees indigenous to this country, and most of which have some economic or commercial value. As is usual in collections of this kind, each specimen-block is saw longitudinally, diagonally, and transversely, so as to show the characteristics of the wood.

Among the many curious specimens in the collection now being prepared for exhibition, says the *New York Times*, one which will excite the greatest curosity is a specimen of the honey locust, which was brought here from Missouri. The bark is covered with a growth of thorns from one to four inches in length, sharp as needles, and growing at irregular inter vals. The specimen arrived here in perfect condition, but in order that it might be transported without injury, it had to be suspended from the roof of a box car, and thus make its trip from Southern Missouri to this city without a change. Another strange specimen in the novel collection is a portion of the Yucca tree, an abnormal growth of the lily family. The trunk, about two feet in diameter, is a spongy mass, not susceptible of treatment to which the other specimens are subjected. Its bark is an irregular, stringy, knotted mass, with porcupine quill-like leaves springing out in place of the limbs that grow from all well-regulated trees. One specimen of the Yucca was sent to the museum two years ago, and though the roots and tops of the tree were sawn off, shoots sprang out and a number of handsome flowers appeared. The tree was supposed to be dead and thoroughly seasoned by this fall, but now, when the workmen are ready to prepare it for exhibition, it has shown new life, new shoots have appeared, and two tufts of green now decorate the otherwise dry and withered log, and the Yucca promises to bloom again before the winter is over. One of the most perfect specimens of the Douglas spruce ever seen is in the collection, and is a a decided curiosity. It is a recent arrival from the Rocky Mountains. Its bark two inches or more in thickness, is perforated with holes reaching to the sapwood. Many of these contain acorns, or the remains of acorns, which have been stored there by provident woodpeckers, who dug the holes in the bark and there stored their winter supply of food. The oldest specimen in the collection is a section of the *Picea Engelmanni*, a species of spruce growing in the Rocky Mountains at a considerable elevation above the sea. The specimen is 24 inches in diameter, and the concentric circles show its age to 410 years. The wood much resembles the black spruce, and is the most valuable of the Rocky Mountain growths. A specimen of the nut pine, whose nuts are used for food by the Indians, is only 15 inches in diameter, and yet its life lines show its age to be 369 years. The largest specimen yet received is a section of the white ash, which is 46 inches in diameter. and 182 years old. The next largest specimen is a section of the *Platanus occidentalis*, variously known in commerce as the sycamore, button-wood, or plane tree, which is 42 inches in diameter, and only 171 years of age. Specimens of the red wood tree of California are now on their way to this city from the Yosemite Valley. One specimen, though a small one, measures five feet in diameter and shows the character of the wood. A specimen of the enormous growths of this tree was not secured because of the impossibility of transportation, and the fact that there would be no room in the museum for the storage of such a specimen, for the diameter of the largest tree of the class is 35 feet and eight inches, which represents a circumference of about 110 feet. Then, too, the Californians object to have the giant trees cut down for commercial, scientific, or any other purposes.

To accompany these specimens of the woods of America, Mr. Morris K. Jesup, who has paid all the expense incurred in the collection of specimens, is having prepared as an accompanying portion of the exhibition, water-color drawings representing the actual size, color, and appearance of the fruit, foliage, and flowers of the various trees. Their commercial products, as far as they can be obtained, will also be exhibited, as, for instance in the case of the long leaved pine, the tar, resin, and pitch, for which it is especially valued. Then, too, in a herbarium fruits, leaves, and flowers, are preserved as nearly as possible in their natural state. When the collection is ready for public view next spring it will not only be the largest, but the only complete one of its kind in the country. There is nothing like it in the world, as far as is known ; certainly not in the royal museums of England, France, or Germany.—*Scientific American.*

FRENCH RIVER MILL.

The Midland *Free Press* says :—"Last Friday the schooner Nett Woodward was loaded at Cook's dock here with the machinery for the American Lumber Company's mill at French River, and a finer lot of machinery, it is said, is not to be found in any mill on the bay. The six large boilers, the powerful engine, and all heavy shafting are from the Joseph Hall works of Oshawa. The stock for the machine shop, including engine and boiler, plane, lathe and drill are from the works of Morrison Bros., Toronto. The improved edger, with four saws was made at Wm. Hamilton's works, Peterboro'. All the steam feed circular machinery was manufactured in Stearn's establishment, Erie, Pa. On this lot alone the Company paid in freight and duty $1,125. There were also fifteen sets of sleighs from Ramsay's carriage works, Orillia.

The machinery taken to the French River mill is guaranteed to cut from 80,000 to 90,000 feet per day, but gangs will be put in next season and the output of the mill increased to 150,000 feet a day. It is calculated that all the lumber manufactured at this mill will be shipped to the North-West.

We can give but a faint idea of the extent of the operations of the American Company, under the energetic management of Mr. John Dollar. Three hundred men are now employed at French River, in getting out 15,000,000 feet for the mill there. They are also taking out a large quantity of timber from 40 to 80 feet long, which is rafted and taken to Detroit where it is cut up for railway purposes. Men are also engaged in making 500,000 cubic feet of square timber which will be brought to Midland and shipped over the railway to Port Hope. At that place it will be made into rafts and taken to Quebec. They are also taking out of Muskoka 15,000,000 feet to be cut at the Company's mills at Midland and Gravenhurst—8,000,000 for Dollar's mill here and 7,000,000 feet for Gravenhurst.

Mr. D. C. Keane, is here looking after the machinery and supplies and attending to the business outside of the mill. He is an active young man, and looks well after the interests of the company.

NATURAL METHOD OF TREE PLANTING.

For some years back we have advocated through your columns the planting of the nuts of nut-bearing trees and the stones of peaches where the trees are going to stand, because these trees have great tap-roots running down into the ground, which in transplanting have to be cut off, thereby greatly weakening the natural strength of the tree, making it short-lived, easily blown over in storms, and preventing it from attaining the size and vigor it would otherwise have if grown in the natural way.

Within the past year writers on forestry and horticulture have been taking up this subject, the tide having turned in favor of planting seeds of all nut-bearing and stone fruits where the trees are to stand.

But the great mass of the public, who should be interested in the subject, know very little and care less about these matters, and either don't plant or do it in the old way, buying from so-called tree-agents, who cheat them nearly every time ; but as they are told high-flown stories about the trees sold them, they rather like to be cheated than otherwise.

It is to try and enlighten them on this subject, and to show them a much better and cheap-

er way, that this article is penned by a nurseryman who has had forty yeas' experience in the business.

In the American Forestry Congress, recently held at Montreal, a paper was read by Dr. Warder, from Robert Douglass, of Waukegan, Ill., on the "Three Motion System of Planting." As you copied this article into the *Witness* last month I need not repeat it here; suffice it to say that it gave a greatly improved method of planting trees over what had ever been practised before, and cheapened it so much that two men and a boy could plant 4,500 one year-old-trees in a day. In addition to this cost there would be the expense of raising them in the seed bed, lifting them at one year old, trimming the roots, and conveying them to the place of planting, nearly all of which could be saved, with the exception of one year's extra cultivation of the land, by adopting the natural method of tree-planting, while the trees at three years old would be much larger and worth two of the trees transplanted at the same age by the Douglass system and at no greater expense than planting corn would be.

For forest tree-planting on the prairies, as described by Dr. Warder and others, all that is necessary is to have the land thoroughly ploughed and prepared in fall, so that water will not lie upon it during winter or spring to solidify it.

If to be planted in the fall the land should be thoroughly harrowed, rolled, and marked the same as for planting—in rows four feet apart each way,—planting the nuts or seeds at the intersection of the rows and placing two nuts or three or four seeds in every hill, only the strongest of which should be allowed to grow.

If spring planting is preferred the nuts or seeds shonld be kept in moist sand or earth during winter and planted out the first thing in spring. If the land was ploughed in the fall and has got hard during the winter, it should be deeply cultivated, harrowed, and rolled in spring before marking out.

By the Douglass method one-year-old trees are planted with the roots more or less trimmed and laid in a slanting position. By this, the natural method, the tree would stand erect from the start, with its tap-root going straight down and its roots springing out all around, forming natural braces for its support.

Besides, some of the most valuable trees, such as the hickory and black walnut, more especially the former, could be planted in this way which cannot be transplanted. The hickory has no rootlets and very few fibres near the crown of the root, merely a very strong tap-root, with a few fibres here and there from which it draws its sustenance; when this is cut off in transplanting, there is nothing left to sustain the tree, and if it lives at all, it is weak and worthless.

A hundred acres of hickories planted in this way would prove a fortune, as the thinnings from time to time would be very valuable and even command a high price for exportation to England, where hickory poles are in great demand, but cannot be had in sufficient, if any, quantity, while the nuts and wood of the grown trees will always command ready sale at high figures. The black walnut would be ultimately more profitable on account of the great value of wood. But this is not all; why should not the apple and the pear be planted in the same way as the nut-bearing trees?

The present way of propagating the apple is by getting the seeds from cider mills, taken from all kinds of trees, healthy or unhealthy, sowing in seed beds or in broad rows, where they stand a year or two according to their strength, when they are taken up and root-grafted during winter with the desired variety, the tap-root is cut up in two to four sections, according to its size, and a graft inserted in each, wrapped around with waxed paper, and packed away with moist saw-dust in boxes or barrels till time for planting in spring.

This is a very cheap way of propagation but far from a good one, as the most valuable part, the tap-root, is sacrificed never to be renewed by after growth.

The pear seed is usually imported from France, and the young trees are generally treated differently from the apple (though some root-graft them also). At one or two years old they are removed from the seed-bed and planted in nursery rows, where they are budded the same year. The tap-root has to be cut off and the other roots trimmed previous to planting. At two or three years old those that grown well are fit for sale, but, as the roots of the pear run naturally deep into the ground, with but few rootlets near the surface, in lifting the greater parts of the root has to be cut off, as the tree could not be planted again with them at full length; so that in looking at the roots of the tree as planted it has been a wonder to me that it could grow at all.

By sowing the seeds, several together, as previously described, in the place where the tree is permanently to stand, all these difficulties would be avoided, and fine, healthy, long-lived trees, probably in a great measure free from blight, would be obtained.

Any farmer or fruit-grower could plant in this way; he could obtain his seeds from some strong healthy trees—those from natural seedlings are preferable (the best French pear seed is all from natural seedling trees), and plant it in hills from twenty-five to thirty-five feet apart placing a stake at each hill as a mark. The field could be planted with corn, potatoes, or other hoed crops (but not with small grains of any kind, as these exhaust the land), which should be well cultivated and all weeds destroyed round the young trees; of course all the seedlings should be pulled up but the strongest trees, which could be budded the same season or the following, and all that did not take could be grafted the following spring with the varieties required.

By using the hand corn-planter, properly guaged for planting nuts or seeds, as the case might be, a large field could be planted by one or two men in a very short time, talking care to plant the seed at the proper depth for germinating, which is about four diameters of the seed, and seeing that it is properly covered with fine earth, to be pressed down with the ball of the foot as the planter goes along.—*James Dougall in New York Witness.*

REMARKABLE DISCLOSURES.

(Seward (Neb.) Reporter.

Mr. B. S. Crane, manager and treasurer of the Alvin Joslin Comedy Company, struck Cheyenne the other day upon business connected with the appearance of that splendid company in this city at an early day. A reporter called upon Mr. Crane at his rooms at the Inter-Ocean and spent a few pleasant minutes in conversation about the coming attraction. Mr. Crane assured the writer that the personnel of the company is all that could be desired and that the public may look for even better performances this season than last. Noticing that the manager looked a little pale the writer remarked upon the fact, but received the reply that he was in good health.

"But," continued Mr. Crane, "I did have a a pretty serious time of it last summer in New York."

"What was the trouble."

"I had a very sharp attack of rheumatism. The disease attacked my left leg and left arm, and for a time I could neither walk upon the one nor raise the other to my head. I suffered horribly. Did you ever have the rheumatism, sir!" addressing the reporter. "If ever you are stricken with it there is one thing which I can recommend as a pretty sure cure, and one which will probably give you quicker relief than anything else you can employ. I refer to the Great German Remedy, St. Jacobs Oil. I am aware of the prejudice which many entertain against advertised medicines. I felt thus about the St. Jacobs Oil and thought my aversion was too deeply rooted to be dissipated. But a man will sometimes catch at a hope as it flies. I purchased a bottle of it, when I found nothing else I applied would give relief, and commenced applying it. It proved a most effectual remedy, and the use of three bottles cured me."

"And you are now quite a devotee of St. Jacobs Oil?"

"That is, perhaps, drawing it too strongly. I certainly do believe it a fine specific for rheumatism, and as my belief is based upon personal experience, I don't mind commending its use to others."

In the office of the hotel, the reporter met Mr. Geo. A. Dunlap, who is the popular and efficient representative in Cheyenne of the Chicago firm of Wood Bros., live stock commission merchants. Happening to mention the interview with the manager of the Alvin Joslin company and what he said about St. Jacobs Oil, Mr. Dunlap replied that he was not surprised at the narration of the circumstances, for the Great German Remedy was a good medicine and he could also commend its virtues.

"Are you struck on Oil, too, Mr. Dunlap?"

"Well, I don't exactly put it that way, but I believe it a good remedy all the same. My experience with it is somewhat limited, but of sufficiently recent date to make me vividly remember what it has done for me. While superintending the loading of cattle this autumn, I fell from a car and seriously hurt my left knee. I believe a blood vessel was ruptured and the muscles severely strained. I could not walk for several days, and do not know that I would be capable of active locomotion now, were it not for the kindly offices of St. Jacobs Oil. Its powerful healing and stimulating properties put me right on my feet. It did, for a fact, and you can use the information if you so please."

"Almost everybody," remarked Mr. A. C. Stayart, representing Weber, Howland & Co., wholesale dealer in hats and caps at Denver, "uses St. Jacobs Oil where I came from. I once had a very sore foot and very naturally employed the Great German Remedy. It cured my foot in a very short time. I also can recommend it."

"Are there any other gentleman present, who would like to endorse this wonderful specific!" said the reporter. "It has assumed the importance of a public question, and I intend to write it up for the benefit of others who may need the offices of this medicine."

"Yes," replied Mr. Wm. H. Dunlap, representing the great coffee house of Jewett, Sherman & Co., Milwaukee, "put me down as another believer in St. Jacobs Oil. I had rheumatism and St. Jacobs Oil cured me. You can just bet on it every time."

"Gentlemen," remarked the reporter, "this is a remarkable coincidence. Two Mr. Dunlaps, each of whom never met the other, both endorsing St. Jacobs Oil, followed by another gentleman in the room. It is a regular experience meeting. It will not be paralleled soon in Cheyenne.

The reporter was subsequently informed by one of the prominent druggists in the city that Father Hayes had also used the Great German Remedy for rheumatism, and, having been cured, commended its employment to his people.

The above is a true bill, and may be relied upon.

A SPLENDID

SAW and GRIST MILL

For Sale by Auction, at

COATE'S AUCTION ROOMS

IN THE

CITY OF TORONTO,

ON

Saturday, December 9th, 1882,

AT 12 O'CLOCK NOON.

These mills are situated on the Gull River, in the village of Norland, County of Victoria.

The Saw Mill has two large circular saws, one butting saw and one edger, with an extra supply of belting. The Gull River affords a means of bringing down timber for 100 miles north of the mill. The Grist Mill has two run of stones. The dam is maintained by the Government of Ontario. There is a never failing of water. The property consists of 240 acres of land, more or less.

One tenth of purchase money at time of sale. Terms for balance will be made known at time of sale.

For particulars apply to

JONES BROTHERS & MACKENZIE,
Solicitors, &c.,
5 & 6 Canada Permanent Buildings,
Toronto.

1L23.

A LORD OF THE FOREST.

The Lord Mayor of London, with the other commissioners of Epping Forest, have been visiting the Duke of Portland's Welbeck estate, which is widely known for the grandeur of its trees. Some of the timber grown in the park years ago was used in building St. Paul's Cathedral, and at the Abbey there is still preserved a letter written by Sir Christopher Wren, who, communicating with the Duke of Newcastle's agent in 1695, sends the dimensions of the beams he requires for the roof of the edifice, and adds that he "expects this season but ten of the great trees." The Greendale oak in Welbeck Park is called the Methuselah of Trees, and writing of it it in 1790, in his "Descriptions and Sketches of remarkable oaks at Welbeck," Major Rook said the tree was then thought to be 700 years old. In 1724, an opening was made in this oak large enough to allow a carriage, or three horsemen abreast, to pass through it. At that time the girth of the ancient tree above the arch was nearly 36 feet, the height of the arch was 11 feet, and the topmost branches were 54 feet from the ground. Although crippled with age and some rough treatment, the Greendale oak still flourishes. It has, like some old men, to be propped up; but its boughs are yet green, and its foliage bright. The timber taken from the tree's heart was in 1724 made into a cabinet for the Countess of Oxford, and this cabinet, which is now at Welbeck, contains several inlaid pictures, one or two of which represent a former Duke of Portland driving a coach and six horses through the cavity cut in the old oak's trunk. On the estate a story is told that His Grace, in an after-dinner frolic, made a bet of 1,000 guineas that he could drive a coach and six through the body of the tree without touching the bark, and that he accomplished the feat and won the guineas. The cabinet, which is quite a work of art, also bears the following quotation from Ovid's "Metamorphoses:"

> Oft did the Dryads lead the festive dance
> Beneath his shade, or hand in hand enclose
> The orbit of his trunk, full fifteen yards;
> Whose head above his fellows of the grove
> Doth tower, as these above the sward beneath.

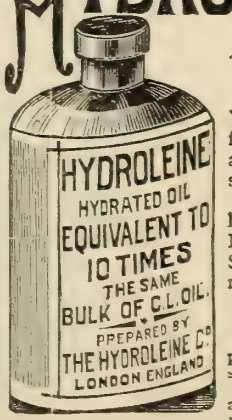
A great many mills throughout Minnesota and Wisconsin are shutting down. In some cases there is a lack of logs, and in others there is feeling on the part of the mill men that there is enough unsold lumber in their yards.

THE Merrill, Wis., correspondent of the *Northwestern Lumberman* says that most of the mills at that point are shut down, having cut all their logs. The river will be clearer than ever before. Men are going to the woods very fast. The weather is cold, and some snow has fallen. With a good winter there will be more logs put in than in any one season before.

HYDROLEINE

(HYDRATED OIL.)

An artificially digested Cod Liver Oil.



For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases.

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

A WONDERFUL FACT.

HYDROLEINE *mixes* perfectly with *water*, showing a complete artial digestion of the oil, and just as the HYDROLEINE mixes with the *water*, so does it mix with the liquid contents of the *stomach*, and enters immediately into the *system* to *nourish* and *build* it up. The efficacy of HYDROLEINE is NOT CONFINED to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of *Fat* in the body, it causes *marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

Unlike *ordinary* preparations of Cod Liver Oil, it produces *no* unpleasant eructation or sense of nausea, and should be taken in such very *much smaller doses*, according to the directions, as will ensure its *complete assimilation*; this, at the same time, *renders its use economical* in the *highest degree.*

For sale by all Druggists.

LARCH-MERE.

The following paper by Dr. John A. Warder, of North Bend, Ohio, appears in the American Journal of Forestry:—"In this age and country, where so much is accomplished by the assumption of merit, and by boastful claims of praise for works said to have been performed, but which too often fail when they are subjected to close scrutiny, it is truly refreshing, in our rambles over the country, to meet with a tree-planter who does not boast of millions as the result of his labours, which, when seen, will contain only a few thousands; and instead to find a man who, without any bragadocio, quietly and thoroughly does something that is worthy of notice and report.

Fast as trees may grow in this country, and their rate of increment is said to be much greater than in European forests, still the work of growing a productive forest that shall yield returns within the lifetime of the planter appears to most men problematic. Some fast-growing trees, like the cottonwoods, willows, chestnuts, locusts, and a few others, with very brief rotation, may be cited, but, as a rule, Forestry is and must be slow in its cash returns.

But to a brief description of Larch-Mere—where our worthy friend has undertaken to clothe a vast amount of waste, sandy land with valuable timber. Not content with the usual boast of so many who are styled foresters and forest-planters, who can show but a few acres at the most, we here find many hundreds devoted to this crop. The planting is of course progressive, and spread over several years, but it is done by a private citizen who has other interests to look after, and who must also provide for his daily wants.

From the great railway corporations who possess larger means, and on account of their own deep interest in forestry, that would enhance the value of their extensive landed estates, granted as subsidies by the government, we had expected, before this time, some grand results that would be worthy of record. But what have these wealthy bodies to show, after long years, as the result of the florid anticipations that were published to the world some years ago! Let them look to their laurels, or it may happen long before the close of the century, that private individuals of moderate means will have greatly outstripped them with absolute results of growing timber.

The plantation which is now to be described is situated on the low shores of Lake Michigan, on its western coast, near the little city of Waukegan, Illinois, close to the Wisconsin State-line, in latitude 42° 30′ N., at an elevation of six hundred feet above the level of the sea. The surface is slightly above the level of the lake, except where, from the continued action of the winds and waves, the sands have been thrown into dunes of some fifteen to twenty feet in height. The whole territory, extending for some miles along the shore, appears to be the delta of a small stream called Dead River, which here finds its embouchere after cutting its way through the elevated bluff of glacial clays that forms the original boundary of the lake, and rises thirty or forty feet above the water.

The surface of this extended plain is made up of a succession of narrow, low, flat ridges, separated by shallow depressions, usually containing water—these are generally but a few rods wide, and their trend is parallel to the coast of the lake; they seem to be old shore-lines, like the higher ridges along Lake Erie in Ohio. At present there is little or no arboreal vegetation, though there are evidences of some ancient forest growth, and an occasional white-pine tree still standing gives proof of an ability to produce trees. The dry ridges have a scanty covering of inferior grasses and other herbaceous vegetation, with here and there patches of shrubby growth, consisting of bear-berries, low willows, aspens, cornels, spiræas, and on those more elevated a few white pines, with the more abundant, but very scrubby black oaks and some other trees and bushes, among which are junipers, notably the trailing form of *juniperus sabina*, and known as the "*Waukegan-Trailing*."

In many places, however, and wherever the herbaceous covering is disturbed and the surface is exposed to the action of the winds, particularly near the lake, broad areas are perfectly bare, and composed of drifting sands, that are thrown into dunes and changed in form from year to year. The depressions between the ridges are clothed with native grasses on their sides, with typha, rushes, and other aquatic plants where they are deeper and covered with water—here, of course, there are accumulations of vegetable debris, but the bottom is everywhere firm sand. In these depressions wooden growth is rare, and consists of button-bush (*Cephalanthus*) and some willows, until you reach the last depression under the bluff, where the black-ash of small size is found.

Such a tract of land would seem to be rather unpromising to the tree-planter; being on one part too wet for tree growth, and on the other, composed of pure sand to receive the scorching rays of a midsummer sun and liable to reach a temperature of more than 100° Fahrenheit in the daytime, alternating with cold, at night, of perhaps 50°, as a result of radiation, and exposed to very low temperature with the trying winds of winter.

Notwithstanding the unpromising, even forbidding aspect, the natural indications were such as to encourage the attempt, which was made, and which has been made successfully, to clothe this waste with a profitable crop.

Great encouragement was given to the enterprising planter by the results of his observations upon the plans Nature had adopted to enable the spontaneous growths to protect the sands from the baking heat and biting cold—and thus to secure a more temperate stratum of soil near the surface for the feeding roots of the trees. The scanty herbage of the grasses could do little in this way. The trailing-junipers, however, soon covered the surface and caught the drifting sands that formed cumuli about them—on other spots of the dunes a close carpeting of the *Urva ursi* concealed the sand, making it possible for tree-seeds to germinate and to survive the summer heats, and so the arboreal vegetation gradually spread over these ridges.

The most interesting forestal study here was the behaviour of the *Pinus strobus* on these sands. Feeling the necessity for a cooler soil, the upward growth of the young trees was arrested, and the lateral branches were extended quite near the surface, until, in some cases, they had reached a diameter of a rod or more, when at length an aspiring leader would shoot upward, and the growth of that tree was assured.

Planting, under such conditions, was a very simple affair. On the sand, the mark of wagon-wheels was sufficient. Furrows were plowed on the dry ridges and the trees were set either *in pits* or by *notching*, according to their sizes. The species selected are mostly coniferous—the common pines and larches prevail, while some ailanthus and catalpas were also planted. All seem to be doing well in their new homes, with some failures, of course, in removal from the upland nursery grounds to these flat sandy lands, and from the shelter of the close rows to their more scattered stations on the exposed hot sands, the transition was more than they could bear until Nature provided the necessary shade by lateral branches as observed in the native *Pinus Strobus*.

The Scotch pines seem to have become reconciled the soonest to their new home, and grew off beautifully. The robust Austrian promises well, but the *Pinus rigida* and table-mountain pine have not done so well.

A recent report from the plantation (July 29) is very satisfactory. "Many Scotch pine, a few Austrian, and many white pines are now eight to ten feet high—some larches are twelve feet. Where the trees stand close, they run up about as fast as on good lands, but single trees have to spend some years in making laterals to shade the ground and then they shoot upward. My Larch-Mere plantation is really a study."

The trees are exposed to inroads of teams, skating parties, cattle and fires, and yet "they are far ahead of those on Cape Cod or any other barren-land plantations I have seen. . . . If the ailanthus would stand our climate, it would be the tree to cover all these wastes rapidly, and it would not be so liable to be burned as the conifers. Of course spruce, balsam-fir, arbor-vitæ, and red cedar will not grow in blowing sand, or in any very sandy land, but the white, red, and Scotch pines will grow as rapidly here as in good upland without cultivation."

Here are six hundred acres of forlorn waste, marsh, and sands, that had furnished but a meagre pasture of inferior herbage, which are now put in the way of producing a grand forest by the planting of five hundred acres with timber trees.

The situation, too, is one than can not fail to attract the attention of travellers on the Chicago and Milwaukee Railroad, which courses along the base of the bluff, on the western side of the plantation, and commands a view across the flats.

Some forest trees planted on the upland are also worthy of note. A large nursery, well stocked with pine and larches, became unsaleable by their size during a period of depression, and have now grown into a bit of forest covering twenty-four acres, and they show what the larch can do on such land. They are already twenty-five to thirty feet high, and many of them three to seven inches thick at the base, and would be available for hop-poles, fencing, and for many purposes.

Having named the locality as at Waukegan, Illinois, it will be unnecessary to add the name, Robert Douglas & Son, familiar as household words to all western tree-planters, and known indeed in all civilized countries whither the public mails have transported so many of their dollar-packages of little or baby forest trees, that have enabled men to gratify their desire to experiment in tree-planting, even in the uttermost isles of the sea, and upon the jungles of India, wherever civilization has sent the mail-bag have "these presents" gone as worthy pioneers of advancing and progressive American Foresty—a Yankee suggestion and far-reaching as thought.

THE USE OF THE MICROSCOPE IN TESTING TIMBER.

An interesting paper on this subject was recently read before the Franklin Institute, Philadelphia, by Mr. R. Grimshaw, C. E. Whilst disclaiming any intention of suggesting that the elastic limit, or even the breaking strain, of structural materials can be definitely determined by the microscope, Mr. Grimshaw insisted very strongly on the advantages attending its use in preliminary investigations, to ascertain whether materials are or are not worth the expense of testing further. If the microscope condemns the sample it is not worth further outlay. The larger the specimens requiring to be tested the greater will be the gain the microscope will effect in avoiding the cost of further proof, or the risks of using without such proof.

Mr. Grimshaw exhibited samples and microphotographs of American bridge timbers which had proved faulty after being built in, but which a preliminary examination with the microscope would have promptly thrown out. The timber from which these poor specimens were taken was a fragment from a railway bridge wrecked in 1879-80. The timber formed a portion of the sill of a draw bridge, consisting of two 12 in. sticks lying on upon the other. The turntable casting being somewhat too small, these 24 in. of timbers had to support one of the A frames of the bridge at a distance of 12 in. outside the bedplate. After a few days' service the strain became so great that, when an empty truck was passing, the A frame sheared the 24 in. timbers, wrecking the bridge entirely. The timber was so excessively poor that, on mounting a specimen on the plate of the microscope, its weak and porous nature was at once apparent. The annual rings appeared about three times as far apart as they would be in good wood of a similar kind, the medullary rays were few in number and short in length, whilst in good wood, on the contrary, they are of considerable length and so numerous that tangential sections present the appearance of a series of tubes seen endwise, or a number of parallel chains. After once seeing and comparing samples of good and bad wood, it is easy to recognize the difference with a pocket magnifying glass.

The trunks and limbs of exogenous trees, as is well known, are built up of concentric rings or layers of woody fibre, which are held together by radial plates acting like treenails in a boat's side or "bond" in brickwork. The rings representing successive years' growths, are composed of tubes, the interstices of which are filled with cellulose. The slower the growth of the tree, the thinner these yearly rings, and the denser and harder the wood—other things being equal. Not only is the closeness of texture an indication of the hardness and strength of the timber, but the size, frequency and distribution of the radial plates which bind the annual layers together may be taken as a very close illustration or sign of the character of the wood and its ability to resist strains, especially a breaking stress. The microphotographs of good and bad timber show that in the strong kinds the concentric layers are close in texture and narrow in width, and the radial plates numerous, wide, long, and stout, while in poor stuff the opposite characteristics prevail.

The practical application consists in having such enlarged photographic sections, longitudinal and transverse, of standard pieces of timber, bearing a certain known maximum or minimum strain, and rejecting any piece which the assisted eye detects to have fewer rings per inch of tree diameter, fewer fibres, or fewer radial plates per square inch of section, or to use such pieces with a greater factor of safety.

The advantage of the method is that it allows every stick in a bridge or other structure to be tested before use.

Mr. Grimshaw concluded with some remarks on the application of the same test to metal-work in structures.—*Timber Trades Journal.*

AN ENGLISH WALNUT.

A reader of the *Builder's Weekly Reporter*, England, sends that paper an old and quaint account of a walnut tree, dated Nov. 17th 1817. It was as follows:

"Dimensions of walnut tree bought by Thomas Jones, gunsmith, Wrexham, of Miss Ormsby, for £60, October 15, 1809. It grew on a rock of limestone at Llanddyn farm, near Llangollen; its height was 25 yards, and its boughs covered a space of ground about 30 yards diameter; its contents in sound timber was 646 cubic feet 10 inches, besides what was crushed in falling, which was considerable. Six tons of strong boughs was used for coal props, and about two tons of faggots. The planks were all nearly sound, and converted as follows, viz., 1,630 gun stocks, 71 pair of pistol stocks, and wood for 232 chairs. When sawed, the first cut was nearly eight feet across. Several pieces were given to different gentlemen for tables and small pieces of furniture. According to a story in the neighborhood, this tree was very old. A man 95 years of age said that he remembered a bough of it being broke by the snow when he was a child, and that his grandfather used to tell the family that, in olden times, fairies used in the dead of night to celebrate their marriages under this walnut tree. In sawing this tree the cross roll over the saw pit broke and killed one of the sawyers.

Pine Lands Weakening.

The *Northwestern Lumberman* says:—In some parts of Wisconsin there is a weaker feeling regarding logs and pine lands. Both capitalists and lumbermen are beginning to realize what the *Lumberman* has said for the past year, that it is risky to buy pine at prices that have been paid. Pine timber has a positive value, and this value should not be confounded with one that is speculative. In Michigan pine has been purchased at prices that are not likely to make the owners any money, but on the contrary, in case of a financial depression, these owners would surely be crushed. These fancy prices were due, to some extent, to the idiocy of the forestry bulletins, which have sadly deceived everybody who was not acquainted with the amount of pine there is standing.

Hardwood Wanted.

Hardwoods, of all kinds, of good quality, are wanted in all the leading markets. In Boston ash, cherry and oak, are in demand, and good hardwood of every quality is called for in New York. The *Lumberman* predicted two years ago that the time would never come again when there would be an oversupply of good hardwood lumber, and there is hardly a possibility but the prediction will prove true. With an increase of manufactories for the consumption of hardwood, and a decrease of standing timber, it cannot be otherwise. Every year the percentage of poor lumber grows larger. —*Northwestern Lumberman.*

SPRUCE IN ENGLAND.

"There has occurred no change yet in the market for spruce deals," may be taken to mean this much; that so long as the present shortage exists importers of spruce will be reducing their stocks. With many it is said that this reduction has nearly approached its lowest limits. It is certain that the stocks of spruce now held by nearly all the inland merchants must have reached a low state. If no heavy arrivals come into the west coast ports during the next month or so, we shall, in all probability, see the occurrences of an active demand and a limited supply facing each other. The result of this can hardly be otherwise than that prices will be again forced upwards. Lower port deals especially may be expected to be dearer, as, if for no other reason, it will be largely for this sort that an active demand may be anticipated to arise. But there are other well-known reasons for the supposition that lower port deals will be more than proportionately dear. Of course, sooner or later, the reqirements of the market will be met, and plenty of spruce deals will reach this side. But what proportions will the forthcoming supply assume? is the all-important question of the moment. Probably four-fifths of the spruce buyers inland are "in the market" for stock at this moment, and the number of buyers who are "open to buy," naturally enough, increases every day.—*Timber Trades Journal.*

RESTORING FORESTS.

It has been urged that the native pine forests in New England may easily be restored to a dignified importance by a systematic effort. All over this region are found great tracts of light soil, on plain and hillside, that is not worth cultivating for farm products, but which can be made available for pine-growing. Experiments recently made on the Shaker settlement in Enfield, Conn., have had gratifying results, seed planted in sandy soil in 1869 having produced a dense growth of trees that are now 12 to 16 feet high. If there are conditions under which the growing of forests can result practically it is in such sections as that described above. Where the land is naturally adapted to the growth of timber more than for other purposes, it is strange that efforts in the direction of tree-growing were not made earlier, so that results could have been had at a time when they would be the most acceptable.—*Lumberman's Gazette.*

WOOD STAINS.

Herr Leo, pharmacist, of Benshein, Germany, recommends the following stains for oak, pine, beech, poplar, etc.

1. Yellow stain.—Wash over with a hot, concentrated solution of picric acid, and when dry polish the wood.

2. Ebony black.—Wash with a concentrated aqueous solution of extract of logwood several times, then with a solution of acetate of iron of 14 degrees, Raume, which is repeated until a deep black is produced.

3. Gray.—One part of nitrate of silver dissolved in 50 parts of distilled water; wash over twice, then with hydrochloric acid, and afterwards with water of ammonia. The wood is allowed to dry in the dark, and then finished in oil and polished.

4. Light walnut.—Dissolve one part of permanganate of potassium in 30 parts of pure water, and apply twice in succession, and after an interval of five minutes wash with clean water, and when dry oil and polish.

5. Dark walnut.—Same as for light walnut, but after the washing with water the darker veins are made more prominent with a solution of acetate of iron.

6. Dark mahogany.—Introduce into a bottle 15 grains alkanet root, 30 grains aloes, 30 grains powdered dragon's blood, 500 grains 95 per cent alcohol, closing the mouth of the bottle with a piece of bladder, keeping it in a warm place for 3 or 4 days, with occasional shaking; then filtering the liquid. The wood is first mordanted with nitric acid, and when dry washed with the stain once or oftener, according to the desired shade; then the wood is dried, oiled and polished.

7. Light mahogany.—Same as dark mahogany, but the stain being only applied once. The veins of true mahogany may be imitated by the use of acctateof iron skillfully applied.

A Sensible Definition of Forestry.

Mr. Bernhard E. Fernow, of Slatington, Pa., defines forestry as follows:—"As the idea connected with the term forest is vague and undefined, I am desirous to clear the conception of what may or ought to be called a forest. When we speak of a forest in connection with the science of forestry, we do not mean a mere collection of trees, a wood, or a park, a plantation, but an aggregate of trees or woodlands which are intended and so set aside for the production of timber or lumber. If we speak of planting and cultivating forests, we do not mean the laying out of parks or groves, which have a very different object in view, which present very different conditions of tree growth, and require, in consequence, very different methods of culture. Forestry has nothing to do with the planting of fruit or ornamental trees, nor, indeed, with single trees—just as agriculture does not consider the individual wheat plant. The object of forestry is a financial effect, which is represented by the highest rent from the soil through the cultivation of the same for timber growth.—*Northwestern Lumberman.*

Laid on the Shelf.

Mr. Thos. Claydon, Shelburne, Ont., writes: "I have been suffering with a lame back for the past thirty years, and tried evreything I heard of without success. Not long ago I was persuaded to try St. Jocabs Oil. I purchased a bottle, and, strange to say, before I had used it all, I was perfectly cured. I can confidently recommend it to any one afflicted. No one can speak too highly of its merits." Mr. W. E. Weekley, also of Shelburne, thus mentions a matter of his experience: "I have been a sufferer with rheumatism for years. I was laid up with a severe attack a short time ago, and I can truly say that St. Jacobs Oil produced the quickest relief that I ever experienced. I cheerfully recommend it to every sufferer."

ONE dose of Baxter's Mandrake Bitters will relieve Sick Headache. One bottle effects a cure. Price 25c. per bottle.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Sept. 31st, 1881 and 1882, and also the Consumption for the month of Oct., 1881 and 1882:—

	Stock, Oct. 31st. 1882.	*Stock, Oct. 31st. 1881.*	*Consumption for the month of Oct. 1882.*	*Consumption for the month of Oct. 1881.*
Quebec Square Pine	377,000 ft.	460,000 ft.	405,000 ft.	345,000 ft.
" Waney Board	340,000 "	290,000 "		
St. John Pine	Nil "	5,000 "	36,000 "	5,000 "
Other Ports Pine	52,000 "	39,000 "	10,000 "	20,000 "
Red Pine	60,000 "	53,000 "	9,000 "	8,000 "
Pitch Pine, hewn	759,000 "	619,000 "	127,000 "	159,000 "
" Sawn	589,000 "	372,000 "	73,000 "	129,000 "
Planks	91,000 "	65,000 "	11,000 "	23,000 "
Dantzig, &c., Fir	47,000 "	56,000 "	35,000 "	27,000 "
Sweden and Norway Fir	16,000 "	5,000 "	2,000 "	—
Oak, Canadian	357,000 "	410,000 "	51,000 "	131,000 "
" Planks	86,000 "	129,000 "	53,000 "	33,000 "
" Baltic	45,000 "	68,000 "	3,000 "	4,000 "
Elm	71,000 "	47,000 "	22,000 "	15,000 "
Ash	22,000 "	23,000 "	12,000 "	22,000 "
Birch	54,000 "	96,000 "	36,000 "	59,000 "
East India Teak	34,000 "	25,000 "	19,000 "	2,000 "
Greenheart	126,000 "	34,000 "	2,000 "	5,000 "
N. B. & N. S. Spruce Deals	13,154 stds.	16,076 stds.	6,882 stds.	8,978 stds
" Pine "	550 "	845 "		
Quebec Pine & Spruce Deals	6,641 "	9,827 "	3,198 "	2,829 "
Baltic Deals	4,177 "	3,781 "	1,392 "	1,104 "
" Boards	664 "	260 "	213 "	73 "
" Boards Flooring	2,455 "	2,030 "	903 "	639 "

The American Hotel,
BARRIE, ONT.
Collier Street, Adjoining the Market.
RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
☞ Every accommodation for Commercial and LUMBERMEN.
1Ltf W. D. McDONALD, Proprietor.

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All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward. 1yL5

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Circular, Cross-Cut & Machine Saws
Gummed and Hammered on Short Notice.
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Shop in Sewrey's Foundry, BARRIE, Ont.

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WHOLESALE DEALER IN
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CASTORINE MACHINE OIL
CASTORINE AXLE GREASE
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J. T. LAMBERT,
Lumber and Commission Agent.
ORDERS FOR DIMENSIONS AND ALL OTHER KINDS AND GRADES OF
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☞ P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 1Ltf

CRATEFUL—COMFORTING.
EPPS'S COCOA
BREAKFAST.
"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack whereever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*
Made simply with boiling water or milk. Sold in tins and packets only (½-lb. and lb.) by Grocers labelled thus:
JAMES EPPS & Co., Homœopathic Chemists, London, England.
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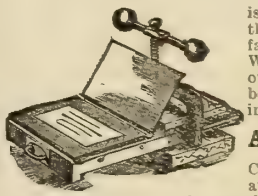
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The Simmons Hardware Co., of St. Louis, says of it: "Our Papyrograph, purchased sometime since, gives entire satisfaction. Would not be without it for $1,000 a year.
For specimens of work, price-list, etc., address with stamp.
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THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

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Per line, for first insertion	10
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Special rates will be made for page, half page and column advertisements.

Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. DEC. 1, 1882.

THE Thunder Bay *Sentinel* says :—A tug with two schooners in tow carrying 1,000,000 feet of lumber for the Winnipeg market, is on the way from Georgian Bay.

IT is estimated that the United States annually consumes about 1,700,000 tons net, of charcoal, 60 per cent of which is employed in the manufacture of iron.

MR. A. GRANT'S raft of square timber, which was coming down in tow of the tug Canada, has been placed in winter quarters at Sorel. The timber coves are now all closed for the season.

ENGRAVERS are finding it difficult to procure good boxwood. The box forests of Turkey, upon which the bulk of the supply depends, are being wastefully cut, and few trees are planted.

ACTIVE preparations for a big log crop are being made in the Duluth, Minn., district, and the prospect is that there will be a heavy increase over former seasons in the put-in. Men are reported scarce.

THE *Northwestern Lumberman* says :—Forestry experiments in the East have demonstrated that planting the seeds is successful where transplanting fails. Several small groves have been produced in that way, and pines are being introduced in a fragmentary way on many worn out farms.

A LOCAL paper says that at Bay City, Mich., though shipments of lumber have been heavy throughout the season, a large amount is piled on the docks, and that if November should be an open month, so that the mills continue running, there will not be room enough to pile the output.

WE have to apologize to the Chicago *Lumber Trade Journal*, for having inadvertently attributed two articles, one on "Timber," and the other on "Forestry," which we reproduced from it, to the London *Timber Trades Journal*, instead of giving the credit as was due to our Chicago confrere. The similarity of name caused the mistake.

A TELEGRAM from Quebec dated Nov. 21st says :—Our Quebec correspondent telegraphs to day :—Several sales of spruce deals have taken place lately, aggregating upwards of 400,000 standard. The prices have not transpired, but they are supposed to be in the vicinity of $40 for firsts, $27.50 for seconds and $24.50 for thirds, 20 per cent. oddments, all next season's cut.

ENGLAND imports some 10,000 tons of cork per annum, and the quantity is yearly inceasing, notwithstanding the introduction of many stoppers and substitutes for corks, such as plugs of wood, whose fibres have been specially softened for the purpose, India rubber and other materials. The French Government is giving special encouragement to the plantation of the cork oak in Algiers, and the same thing, no doubt, will be done in Tunis. It is said that the tree will grow equally well in India, Central America, the West Indies, many parts of Africa and Australia, and in the South Sea Islands, and the foundation of a profitable industry might be established by introducing these tree, and starting their systematic cultivation.

H. B. RATHBUN & SONS (limited) seek incorporation under the Joint Stock Companies Act to enable the company to carry on in Canada, Great Britian, the United States, and elsewhere the business now carried on by the firm of H. B. Rathbun & Sons in all its branches as manufacturers, millers, shipbuilders, vessel-owners, merchants, traders, carriers, and otherwise. The chief place of business shall be at Deseronto. The applicants are Hugo Burghardt Rathbun, manufacturer, &c.; Edward Wilkes Rathbun, manufacturer ; Frederick Sherwood Rathbun, manufacturer ; Herbert Burt Rathbun, gentleman, and Louise Rathburn, spinster, all of Deseronto. The first or provincial directors of the Company will be Hugo Burghardt Rathbun, Edward Wilkes Rathbun, and Frederick Sherwood Rathbun.

EXPERIMENTS made by F. E. Kidder, and reported in the last issue of the Journal of the Franklin Institute, show that spruce beams loaded to one-half to two-thirds their breaking strain, finally break after a long and steady deflection, which continually increases until the final rupture occurs. If substantiated by further experiments, this fact will go far toward explaining the frequent falling of mill and warehouse floors, under loads supposed by the builders to be perfectly safe. The floors of all such buildings should be sufficiently strong to carry at least three times the weight that can, by any possibility, be put on them, and at least five times as strong as the ordinary load. Where there is running machinery in the building which is likely to produce jar or tremble, these figures must be exceeded, as the effect of a continuous jar and strain combined is very destructive to the buildings in which they are found.

LAKE WINNIPEG TIMBER.

We take the following extract from an account of the country about Lake Winnipeg as published in the Toronto *Globe* :—

"Lake Winnipeg is larger than Lake Ontario, although its waters are not nearly so deep. Its shores on both sides are clothed with dense forests of fine timber, chiefly poplar, birch, and tamarack. Its surface is dotted with innumerable islands, especially on the western shore. These islands, like the banks of the lake, are covered with timber down to the water's edge. A sail through these islands in the summer time is delightful.

"There are very few settlers on the shores of Lake Winnipeg as yet, but large tracts of land are being taken up towards the south on free grant and pre-emption principle. Large timber limits are also being taken up. There are only two places of any size on the lake, Fort Alexander on the East and Gimli on the West. There is little of interest around Gimli, which is an Icelandic settlement. Fort Alexander is, however, a good-sized place, there being about 400 persons, whites, Indians, and half-breeds, living there. The fort stands on the Winnipeg River, a fine stream, which is navigable only eight miles up on account of the falls. There are two saw mills, one at the mouth of the river owned by Walkeley & Burrows, and the other eight miles up, owned by Adams & Schneider, Each mill turns out about 3,000,000 feet per annum. The mill at the mouth of the river is run by steam power, that up the river by water power. The lumber when ready for the market is taken up the Red river in barges. Between the hands at the mills and those employed on the barges and at Colville landing, where the lumber is transferred to the cars, not less than 400 men are employed. That number will be greatly increased next year. The work of transhipment will be done chiefly at this town next season, as the landing place for the Selkirk and Winnipeg Railway will be far more convenient than that on the east side of the river.

"A great many small limits have been taken up along the shores of the lake, and some of them go far back. On the small limits the cost of lumber to the party taking it out is from 12c to 15c. per cord. In cases where the limits are ten miles square or over, the cost is not over half what is stated above. The wood is dense, the yield being from seventy to eighty cords to the acre.

"As the lumber interests of the lake district are being gradually developed the country will be better known and its beauties and wealth laid bare. Some idea can be formed of the enormous wealth of timber on the shores of Lake Winnipeg when it is stated that an estimate put it as being large enough to supply the whole provice with timber and fuel for three generations to come."

LONGFORD MILLS.

The Orillia *Packet* says :—Both the mills of the Longford Lumbering Company have been closed down for the season, on the 10th and 11th of November respectively. On the 17th day of April last steam was get up in the mills, with a full crew of abont 100 men, and the season finished without as many changes as was anticipated at the outset from the prospects of scarcity of men. The mills for the full season were fully manned every day owing largely to the good feeling always existing at this place between the company and their employees ; no breaks of any size occurred from start to finish, the lost time on any account would not amount to a full day's work altogether. The quantity sawn was over the average, the two mills together sawing 17½ million feet. The large mill was in charge of Mr. Robert Calderwood, with Mr. D. J. Boothwick as engineer ; and the small mill was in charge of Mr. Wm. F. Morrison, with Mr. James Bell as engineer, to which officials the success of the season was largely due. On the 7th of November the company made it known that the mills would be closed on the 10th instant, and on that evening the employees would be the recipients of a supper and on entertainment. Arrangements were made at once to invite a number of their friends to partake of their festivities. On that evening each man called at the office and received in an envelope the balance of his wages, with an extra amount of 5 per cent. added to it from the 15th day of August. Every man in the employ expressed himself as being perfectly satisfied with the treatment he has received, and many were the expressions of thankfulness to the comrany. At 6 o'clock p. m. the supper bell rang and the men from both mills filed into the spacious dining hall of the large boarding house, where four large tables were overflowing with all the good things of the season, got up in the usual first-class style by mine host and hostess Mr. and Mrs. Cox. Among those present on the occasion were Wm. Thompson Esq., President of the Company, Mr. George Thompson, director, and Mr. Maxwell Hall, Secretary, with every employee, numbering 120 persons. After ample justice had been done to the good things provided, the tables were taken out of the spacious hall and splendid music provided, the visitors arriving at intervals, swelling the crowd to fully 300 persons ; dancing and merrymaking being kept up till day break next morning, without a single improper word or act to mar the pleasure of the party. On Saturday the bulk of the men were re-engaged by the secretary to work in the company's camps, where they have now about 300 hands and 35 span of horses actively engaged making logs for next year's cut. The company are to be congratulated on having secured such an industrious and hard working crew of mill hands and the successful issue of the season's operations.

MIDLAND, ONT.

NEW MILL.—The *Free Press* says :—Mr. Paxton with a force of carpenters and millwrights has commenced work on framing the timbers for Cook Bros. mill at Algoma.

MEN FOR THE BUSH.—Alf. Green has again turned up from Lower Canada with 120 good able-bodied men for the bush. These men have come all the way from Gaspe, induced by the high wages paid for work in this lumbering districts.

STILL RUNNING.—We hear it is the intention of all the mill owners to run their mills until "Jack Frost" shuts them down with a snap so severe that the small boys will blow their fingers, their grandfathers hug the fires, and the aborigine poke his moccasins in the ashes for warmth.

LOOSING A BOOM.—On Saturday night Nov. 11th, the cedar boom at McLeod's mill was cut loose by some miresable miscreant—result—cedar scattered all over the bay. We don't often favor lynch law, but believe if the rascals are caught this is a case in which it might be resorted to with beneficial results. The law usually wholesome and effective would fail to strike with sufficient force. We recommend a rope and a tree.

EXTENSIVE LUMBER SHIPMENT.—On Tuesday morning, Nov. 6th, there left the dock of the British Canadian Lumber and Timber Co., the steam barge Tecumseh, with her consort, the Dot, laden with about one million feet of lumber, consigned to Mr. W. C. Wells, of Duluth, for Winipeg. These were probably the two first loads of lumber that have been despatched to the North West since that market has opened for Canadian lumber and were carefully selected by Mr. Frank Weston, agent of J. & F. N. Tennant, Toronto, who was assisted by Mr. Wells himself during the progress of loading. Mr. Wells intends to ship largely from here the coming year, and on his return to purchase we shall gladly welcome him to our village.

MONTREAL NOTES.

The trade in deals has been unusually heavy this year from this point, 45 vessels having cleared against 27 last year. This business until very recently was monopolized by Quebec shippers. It is explained that the cause of the old capital losing it is the difficulty it had in meeting the demand of the 'longshoremen of the Ship Labourers' Union, whose charges for labor are so exorbitant that shippers prefer this port. Deals from Three Rivers are sent to this port by rail in preference to Quebec. The above is the principal reason given by the shippers.

The lumber trade this season appears to have been the best done since 1872-73. It has been steadily going on since the opening of navigation, most of the cargoes have been for the River Platte and other South American ports. In May the first vessel sailed, and this month the last of them leave. So far no fewer than 49 vessels have cleared. The manner in which Montreal has been absorbing the lumber trade may be guessed when it is shown that from other ports on the St. Lawrence, including Quebec, only 2,607,480 feet were shipped, all of which was spruce. The whole quantity of lumber shipped from the St. Lawrence ports to the River Platte is 19,590,930 feet of pine, 4,653,995 feet of spruce, 79,100 pickets, and 508 spars, or in all 24,419,827 feet—an increase over last year of 8,000,000 feet, of 14,000,000 as compared with 1880, 16,000,000 as compared with 1877, and 21,000,000 as compared with 1876, when the trade had reached its lowest point.

SHIPMENTS TO SOUTH AMERICA.

The Montreal *Witness* says :—Canada's most important export trade outside of grain and and diary exports, is that of lumber and timber. Next to our fertile lands, our magnificient primeval forests are our greatest source of wealth. Few people have any idea of the large share which Montreal as a port does in the export trade of lumber. Owing to the want of wharf accommodation higher up, and also to the fact

that it is a more convenient situation for the lumber trade, the wharves devoted to lumber are below the St. Mary's current at Hochelaga. The visitor to the harbor who may gain some idea of the immense trade we do in grain by the sight of the many busy elevators and barges at work alongside of the stately ships, sees nothing of the great lumber hills that are constantly being added to and taken from a couple of miles below. Some idea of the lumber trade may be formed from the shipments of Montreal to the River Platte in South America alone. There are only two of the many lumber firms engaged in the trade, namely, the "Export Lumber Co. limited," and the "Shepard and Morse Lumber Co." The trade commences late in June, and ends early in November, being thus confined to a period of a little more than five months. The trade increases during the months of July and August reaching its highest point in September, and then falls off greatly during October. In May 1 vessel loaded with lumber for the River Platte cleared, in June 9 vessels, in July 11 vessels, in September 16 vessels, in October 11 vessels and in November 1 vessel. In all 49 vessels. The crafts engaged in the trade are sailing vessels, carrying from 160,000 feet to over 800,000 feet of lumber. A vessel seldom appears twice during the same season. Judging from their names, such as Ariete, Malilamo, Wawoleneh, Piskatagua, Beaver, Suga, Preciosa, &c., there are crafts of all nationalities represented in the trade.

The total number of feet of lumber shipped to the River Platte was 21,627,460, besides 95,000 pickets, which are not included. Of this amount over 19,590,945 feet was pine lumber, of the trade in which from the St. Lawrence with South America Montreal possesses the lion's share. The remainder was spruce, of which 2,046,515 feet were shipped.

From other ports on the St. Lawrence, including Quebec, only 2,607,480 feet were shipped, all of which was spruce. From Sault au Cochon 1 vessel sailed, from Chicoutimi 2, from Grand Bay 1, and from Quebec.

A recapitulation of the whole trade shows that there was shipped from the St. Lawrence port to the River Platte 19,590,930 feet of pine, 4,653,995 feet of spruce, 79,100 pickets, and 508 spars, or in all 24,419,827 feet of lumber. This is an increase as compared with last year of 8,000,000 of feet, of 14,000,000 as compared with 1880, 16,000,000 as compared with 1877, and 21,000,000 as compared with 1876, when the trade had sunk to its lowest point. The following shows the shipments during the last thirteen years :—

SHIPMENTS.

1870	25,145,182	1877	8,787,928
1871	16,005,935	1878	10,855,246
1872	28,234,968	1879	12,476,150
1873	36,073,919	1880	10,420,080
1874	16,262,293	1881	16,147,941
1875	10,123,000	1882	24,419,817
1876	3,437,000		

MANITOBA'S WOODS.

At this season of the year, when the mosquitoes have disappeared, a quiet walk in the woods of Manitoba is exceedingly interesting to anyone who loved a stroll in the great forests of Ontario, and a close observation as to the difference which exists between the trees of this country and those of the great timber belt of the eastern province must ever afford matter for agreeable contemplation. In Ontario the woods are usually composed of maples, elms, beeches, basswoods, with a proportion of evergreens, the hemlock and balsam being the most common, except where the pine flourishes. The underbrush is mostly of the same species as the larger trees, unless on low ground, where blue beech may be discovered.

In this country, as much of the land is wholly destitute of timber, nature seems to take delight in crowding together along the rivers and lakes an infinite variety of trees, bushes, and vines. The water helps to protect them from the great fires which periodically sweep the plains, and the thickness of the grove enables the trees and bushes to give each other shelter from the cold winds and intense frosts of winter. As the traveller advances towards the woods he will notice the wild fringe of hazel, wild cherry, small poplar, buffalo berry, and scrab oak which encircles the trees that compose the larger forest. At this season of the year the hazel bushes are loaded with nuts of good size and fine flavor, and in many spots a two bushel bag could be filled in a very short time. When the wanderer enters the thicker shade amongst the larger trees he will everywhere observe the heavy rich red clusters of the high bush cranberry, the fruit being in such profusion that a large basket can be filled in an hour. A peculiarity of these berries is their readiness to hang in bunches on the bushes long after the winter sets in, the juice and flavor being improved by the frost.

The principal tree in the Manitoba woods is the poplar, the next in importance is the oak, and near the rivers will be noticed large elms. A very beautiful tree is the ash-leaf maple. Its fresh, green leaves open out early in the spring, It is a most vigorous grower, and bears transplanting remarkably well. Were its qualities known it would be valued as an ornamental tree in any northern country. In the spring the ash-leaf maple yield a sweet sap, from which excellent sugar can be made, the chief trouble being that at the time the sap flows the flooding of the river makes it difficult to reach the trees. On the shores of the streams which enter the Red river, and especially near their mouths, basswood grows in great abundance, and ironwood of a large size can be met with. In this district these trees are not found, although sometimes good ash can be discovered ; a few white beech occupy a place in the woods, and occasionally grow to a good size, but the tree is not common. Partridges, rabbits, bluejays, chick-a-dees, chipmunks, and red squirrels are plentiful in the bush, and, excepting the chipmunks, are to be noticed even in the winter months. Black squirrels are not found in Manitoba.—*Pilot Mound Signal.*

A. CHARD, of Sterling, in a recent letter states that he met with an accident some time ago, by which one of his knees was severely injured. A few applicatiens of Hagyard's Yellow Oil afforded immediate and complete relief.

Important Auction Sale

OF

VALUABLE

Timber Limits

In the High Court of Justice, Chancery Division.

McTIERNAN VS. FRASER.

Pursuant to the order for sale made in this action dated the 25th day of October, 1882, there will be sold at Public Auction by and with the approbation of William Marshall Matheson, Esquire, Master at Ottawa of the Supreme Court of Judicature for Ontario, at the Grand Union Hotel, at the City of Ottawa, on THURSDAY, the 21st DAY OF DECEMBER, 1882, at 2 o'clock p. m., the following Timber Limits :—

PARCEL No. 1.

Limit on the River Dumoine, License No. 300 for season 1881-2, issued by Crown Lands Department of Quebec, area 30 square miles. This limit is in the Province of Quebec and is situate along the east shore of the River Dumoine, about 42 miles from Des Joachims on the Ottawa River. It is easy of access and has a good road leading to it from Des Joachims. It contains a large quantity of white pine of excellent quality and for the most part of large size ; there is also some red pine of good quality. Timber cut thereon can be easily driven through Mason Creek and North River, (both well improved streams), to the River Dumoine, and thence along the River Dumoine to the Ottawa River. The distances for hauling timber vary from one-eighth of a mile to five miles, but generally less than three miles. With this limit there will be sold the right to use the farm and depot used in connection therewith known as North River Farm, and situate about the centre of said limit. The farm consists of about 100 acres of land, cleared. The soil is a sandy loam. On the farm are the following buildings, viz. : A good log house about 20x26 feet, one storey and a half ; one log barn well finished, about 30x40 feet ; good store house, about 26x36 feet ; also horse stable, cow-stables, hen house, root house and other sheds and outbuildings.

PARCEL No. 2

Limit on West side of Black River, License No. 238 for season 1881-2, issued by Crown Lands Department of Quebec, area 50 square miles.

This limit is in the Province of Quebec, is situate along the west side of Black River, and is about five miles in a north-easterly direction from the north-east corner of parcel No. 1. It is easily reached by road leading from Des Joachims through Dumoine Limit. It contains a large quantity of white pine of very good quality. Timber cut thereon can be driven without any difficulty through two good Creeks, known as Coughlin Creek, and upper West Branch Creek, to Black River, and thence along Black River to the Ottawa River. The distance for hauling timber will average about 2½ miles. With this limit there will be sold the right to use the farm and depot used in connection therewith, known as Hope Farm. This farm is situated about 15 miles from said limit, and connected with it by a good road on a limit owned by Millar and Grant. It consists of about 200 acres of land, cleared. The soil is loam. On the farm are the following buildings, viz.: double shanty, about 26x52 feet, two log barns, with shingled roofs, two log stables capable of accommodating 32 and 14 horses respectively, store house, granary, cow house, cow sheds, hen house and root house.

PARCEL No. 3.

Limit on East side of Black River, License No. 303 of season 1881-2, issued by the Crown Lands Department of Quebec, area 50 square miles.

This limit is in the Province of Quebec, and is situate along the east side of Black River, opposite parcel No. 2. The timber thereon is white pine of very good quality. Timber can be driven without difficulty through Cavreau Creek and Black River to the Ottawa River.

With this limit there will be sold the right to use the farm and depot used in connection therewith, known as the Cavreau Farm, and situated on the edge of a lake on Cavreau Creek, about 3½ miles from Black River. This farm is on the limit and consists of about 100 acres, cleared. The soil is good loam. On the farm are the following buildings, viz.: Log house about 20x26 feet ; two cedar log barns, one about 30x40 feet, the other about 26x36 feet, one stable capable of accommodating about 20 horses, cow house, blacksmith's shop, hen house and root house.

PARCEL No. 4.

Limit on Black River and River Coulonge, License No. 242 for season 1881-2, issued by Crown Lands Department of Quebec, area 15 square miles. This limit is situate along the Eastern line of parcel No. 3. It is well timbered with white pine of fine quality. Timber can be easily laid on either Bruce Lake or Bruce Creek and driven to River Coulonge, and thence along the Coulonge to the Ottawa River.

All the said limits are easy of access, being a convenient distance from the Ottawa River.

The said limits will be sold subject to reserved bids fixed by the Master in parcels as above mentioned.

All hay, goods, chattels and shanty rigging on each parcel belonging to the partnership of McTiernan & Fraser, may at the option of the purchaser of each parcel be taken at a valuation to be subsequently fixed by the said Master.

TERMS OF SALE —The purchase money is to be paid as follows :—Ten per cent. to be paid to the vendors' solicitors at the time of sale ; a further sum sufficient to make up 25 per cent. thereof within twenty days from the day of sale, to be paid into Court to the credit of this cause, and the residue thereof to be paid into Court at any time within four months from day of sale with interest thereon, at the rate of seven per cent. per annum from the day of sale.

All conveyances, searches, transfer fees, etc., payable to the Crown, are to be at the expense of the purchaser.

In all other respects the terms and conditions of sale will be the standing conditions of the Chancery Division of this court.

Further particulars may be had from Messrs. Scott, MacTavish & MacCraken, or Messrs. Pinhey & Christie, Solicitors, Ottawa.

Dated this 14th day of November, A. D., 1882.

W. M. MATHESON,
Master at Ottawa.

SCOTT, MacTAVISH & MacCRAKEN,
2L23 Vendor's Solicitors.

Wanted.

A PARTNER that understands the SAW MILLING BUSINESS, with capital. For information address JAMES B. DICKSON, Pembroke, Ont. 21L6

WANTED.

BLACK ASH PLANK

Sound, Square Edged and largely clear of knots ; 3x8 to 18 inches wide, 10 to 16 feet lengths. Can use it green. Quote for 3 to 5 cars per month, delivered at Boston, Mass.

ROBERT C. LOWRY,
Wholesale Lumber,
21L4 55 Pine Street, New York.

CURRIE BOILER WORKS

ESTABLISHED 1852

MANUFACTURERS OF

STEAM BOILERS.

NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTIN & Co.

Esplanade, Foot of Frederick Street, TORONTO.

LUMBER

Shingles, Doors, Sash, Flooring, &c.,

WANTED,

STATE QUANTITIES AND PRICE TO

SHORE & DAVIS,

Head Office, 514 Maine Street, Winnipeg, Man.

J. L. Goodhue & Son

MANUFACTURERS OF

Leather Belting !

—AND—

Patent Lace Leather.

2L24 DANVILLE, P. Q.

$500 Reward !

We will pay the above reward for any case of Liver Complaint, Dyspepsia, Sick Headache, Indigestion, Constipation or Costiveness we cannot cure with West's Vegetable Liver Pills, when the directions are strictly complied with. They are purely Vegetable, and never fail to give satisfaction. Sugar Coated, Large Boxes, containing 30 Pills, 25 cents. For sale by all Druggists. Beware of counterfeits and imitations. The genuine manufactured only by JOHN C WEST & CO., "The Pill Makers," 81 & 83 King St. East, Toronto, Ont. Free trial package sent by mail prepaid on receipt of a 3 cent stamp. ORMOND & WALSH, sole authorized Agents for Peterborough, Ont. w46d12L22

Health is Wealth.

DR. E. C. WEST'S NERVE AND BRAIN TREATMENT, a guaranteed specific for Hysteria, Dizziness, Convulsions, Fits, Nervous Neuralgia, Headache, Nervous Prostration caused by the use of alcohol or tobacco, Wakefulness, Mental Depression, Softening of the Brain, resulting in Insanity and leading to misery, decay and death, Premature Old Age, and Spermatorrhœa, caused by over-exertion of the brain, self-abuses or over-indulgence. One box will cure recent cases. Each box contains one month's treatment. One dollar a box, or six boxes for five dollars ; sent by mail prepaid on receipt of price. We guarantee six boxes to cure any case. With each order received by use for six boxes, accompanied with five dollars, we will send the purchaser our written guarantee to refund the money if the treatment does not effect a cure. Guarantees issued only by ORMOND & WALSH, sole authorized Agents for Peterborough, Ont. JOHN C. WEST & CO., Sole Prorpietors, Toronto, Ont.

THE ENGLISH LUMBER TRADE.

LIVERPOOL, Nov. 1.—Westerly winds of late have brought forward an excessive number of vessels, and the import, therefore, will look larger than usual in comparison, and, with the exception of spruce deals, every article has fairly maintained its firm value, and when those arrivals have been cleared away a firmer feeling will take place, as at the present price only loss can be the result of nearly all shipments, seeing the high rate of freight and autumn insurance; otherwise trade is generally sounder, and the present stock will not be more than the requirements, as shown by the tables. Money is easier.

COLONIAL WOODS.—Of white pine the stock is firmly held. Several cargoes of Quebec have been sold at full rates, small good fair average square realized 2s. 2d. to 2s. 2½d. per foot, and prime waney 2s. 7½d. per foot. A cargo of Newfoundland pine has been sold at 23d. per foot. Red pine has been sold, but prices have not transpired. Ash has changed hands at from 2s. 2d. to 2s. 3d. per foot. Elm is worth 2s. to 2s. 1d. per foot and walnut from 5s. 6d. to 6s. 7d. per foot, according to size. Oak has been sold at 2s. 11d. to 3s. and 1d. per foot. Oak planks of prime quality realized 2s. 8d. to 2s. 10d. per foot, and inferior 2s. to 2s. 5d. per foot. Birch is in fair demand; New Richmond realized 17d., and 516 logs from St. Margaret's Bay realized at auction fully 18d. per foot. New Brunswick and Nova Scotia spruce deals, strange to say, in spite of the light import and enhanced cost of bringing them to market, have receded in price from the rates paid early in the month, which were fully 5s. to 7s. 6d. per standard higher than lately. This is owing to the forced auctions, as more could have been obtained privately, viz, St. John, £8 5s. to £8 10s; other ports, $7 18s. 9d. to £8 5s., while at auction sales St. John, per Henry, averaged £8 5s. 6d. per standard, and later, per Kate Burrill, $8 2s. per standard. Yesterday two St. John cargoes were sold by private at £8 per standard ex-quay. Several cargoes are no seeking buyers at the out ports; Dalhousie have realized £8 5s.; Miramichi, £8; Bridgewater £8 2s, 6d., and Halifax £8, all c. i. f. terms. Pine deals have been sold at auction—for Miramichi, 1st quality, £13 per standard (2nd quality not sold), and 3rd quality, £7 15s.; Dalhousie, 1st quality at £13, but for 2nd quality £8 only was offered. Quebec pine deals have come forward chiefly on timber merchants' account; 1st and 2nd quality are in good demand; they are quoted at £23 10s. for 1sts, £17 for 2nds, and £10 10s. to £10 15s. for 3rds Ottawa. Quebec pine and West India staves are without any change. Palings have been sold at 70s. per 1,200 for 4 feet x ¾ inch. Laths and lathwood: No sales.

The following is a statement of stocks on hand on Oct. 31st:—

	1882.	*1881.*	*1880.*
Yellow Pine—			
Quebec.....cubic ft.	377,000	460,000	520,000
Waney,..... "	340,000	290,000	170,000
St. John, &c., "	52,000	44,000	65,000
Total Yellow pine, c. ft.	769,000	794,000	755,000
Red pine.....cubic ft.	60,000	53,000	13,000
Baltic &c., Fir "	63,000	61,000	265,000
Oak,Canadian,&c. "	357,000	410,000	312,000
Baltic, "	45,000	68,000	40,000
Planks, Can., &c. "	86,000	129,000	no rec.
Elm..... "	71,000	47,000	27,000
Birch..... "	54,000	98,000	187,000
Pitch pine, hewn, c. ft.	759,000	619,000	318,000
Pitch pine, sawn, c. ft.	589,000	372,000	116,000
Pitch pine, planks c. ft.	91,000	65,000	14,000
Total pitch pine, c. ft...	1,439,000	1,056,000	448,000

Jas. Smith & Co.'s Circular.

THE DOCK STOCKS.

The *Timber Trades Journal* of Nov. 4, says: The usual monthly statement of the dock stocks, which we publish in this number of the *Journal*, will doubtless be studied with a good deal of interest by those who watch the market attentively at this critical juncture. As relates to a comparison with last year, Baltic stocks generally are a great deal heavier now than they were at a similar period twelve months back. This we were to some extent prepared to witness, for it was out of the question that, with such a heavy balance of stock standing over in the spring of the year, the additions made during the summer and fall should not bring the totals at the termination of the shipping up to figures largely in excess of 1881. There were hopes that the demand might be more than usually active this year, and some thought that the war in Egypt would stir up trade, and in that way give a fillip to the consumption, and so help to carry off the heavy additions that were daily arriving; but such expectations were suddenly dashed to the ground by the abrupt termination of the Egyptian campaign, and, though freights were not affected as some anticipated, there was nothing to come to the relief of the maket to prevent its overstocking.

Colonial goods, we are glad to see, are not overdone, nor are the additions to the stocks of spruce very considerable, though amongst the cargoes not taken into stock it may be found that the stocks of lower port deals figure somewhat prominently. Up to the present time, however, stocks of last year of pine as well as spruce are much heavier than the present. The additions made to the stocks of Baltic goods during the month of October amount to some 80,000 pieces of deals and 54,000 battens. Ends have decreased during the interval named, pine deals have also undergone a considerable reduction, notwithstanding the fact of several large cargoes arriving during the month; the same with spruce; but till we know what the bulk of the cargoes not taken into stock on the 31st consist of, it might be erroneous to jump to a conclusion that stocks of white deals are running out. According to the dock statement on all the principal American stocks the consumption appears to have exceeded the supply, for we find smaller stocks now of pine and spruce as regards the various items of deals, battens, ends, boards, &c., than we did on the 30th of September; this is satisfactory, and should ensure good prices during the long interval between now and when further additions can be made to the stocks of these goods.

The greatest reduction during the month, however, has been on the stocks of prepared boards; these latter, which stood on the 30th of September at 4,248,451, are now 3,722,561, or less by half a million pieces than they were a month ago. This coupled with the fact that the cargoes not taken into stock of this description do not form a fourth of what they were a twelvemonth ago, seems to point to a much improved state of things in respect to goods of this class, and those who hold large flooring stocks need have no cause for uneasiness, for if we include the cargoes not taken into stock when the returns were made up, and put them side by side with those of last year, we make out there are actually less prepared boards now in the Surrey Commercial Docks than there were this time twelvemonth. When it is recollected that not so long ago there were over 6,000,000 pieces in stock at Rotherhithe, the rapid fall consumption can be better appreciated. The dock stocks are the best index to an active state of business, as the difference there represented is not apparent when goods merely change hands; hence we may safely infer that the deliveries are a true reflex of the brisk trade that has evidently been carried on in goods of the kind described during the past two months. The reduction of the stocks has exceeded a million pieces a month, notwithstanding cargoes from the shipping ports have been added from time to time.

The deductions to be drawn from this brief summary are that on pine, spruce, and flooring boards we are likely to have a good market, but in respect of Baltic deals and battens we shall have depressed prices for a considerable time to come. It is an open question whether in view of the weak values of north of Europe deals, pine and spruce can be upheld. When we note that Archangel as well as ohter White Sea goods feel the effects of the large stocks of Swedish goods, we are prepared to see Colonial goods share to some extent in the depression. Flooring boards also, owing to the heavy stocks of battens now in the docks, and likely to be considerably added to from day to day, will not improve as rapidly as the greatly reduced stocks would at the first blush lead us to imagine, but as they have kept firm hitherto we count on more improvement in respect to flooring than on any other kinds. The consignments on their way are not said to be heavy, and there is no reason to believe that we shall have at the conclusion of the year as much in the docks as we had December, 1881, though at one time double the quantity was apprehended. Altogether the dock stocks do not read so unfavourably, and if we include Colonial goods in our tot-up, we do not find the market so seriously overburdened after all, though there are still over 1,000,000 pieces of deals, battens, boards &c., in excess of last year's stocks. The chief cause of uneasiness appears to be the heavy additions now said to be on their way.

THE DESTRUCTION OF THE GROMOFF STOCK.

The *Timber Trades Journal* says:—"From a St. Petersburg paper we learn some further particulars of the recent fire at the late Mr. Gromoff's yards. These large timber yards, extending one verst in length and ½ verst in width, close to the banks of the Neva, were on the 23rd October, in less than twelve hours, destroyed by fire, together with all the saw frames and labourers' cottages. The damage is estimated at millions of roubles.

The fire commenced at two in the morning in a stable situated in the centre of the yards, spread itself from thence to a planing mill, a hay rick, and a warehouse containing twenty casks of petroleum, and then on to the timber stacks, which were soon in one immense flame, the heat being so intense that nobody could approach. It now became apparent that it was impossible to save any of the timber, and the work of the firemen was instead directed to the salvage of the adjoining houses and the ships on the Neva, in which they were successful. Together 28 engines were on the spot, and the Finnish steamer in St. Petersburg rendered valuable assistance. The danger of the fire spreading was very great at one time, but at three o'clock it was apparent that the fire would not go beyond the yards, and at six o'clock all danger was over.

The immense stock—3,000,000 deals, battens, and boards, 200,000 timber stocks, 7,000 cubic feet firewood, 80,000 pud coals—as well as a sawmill with engines of 130 horse power, planing mills, and workmen's houses, belonged to the late Mr. Wladimir Ralkow Roshnow, the heir of the late timber exporter and millionaire, Mr. Gromoff, who had left the former all his fortune on the understanding that Mr. Roshnow, for the next six years pays to the widow of the late Mr. Gromoff 300,000 roubles per annum, besides which a country mansion was left to the widow.

The damage caused by the fire is estimated at 2,000,000 roubles, of which only part—not quite 1,000,000 roubles—was covered by insurance in several companies; viz., 550,000 roubles in a Russian company of 1827, the mills in another Petersburg company, and the rest, 400,000 roubles, in an English company. Three thousand labourers and 300 foremen are through the fire thrown out of employment.

NEW BRUNSWICK FORESTS.

The following paper was contributed to the proceedings of the Forestry Congress at Montreal, by Edward Jack, Esq., Fredericton, N. B.:—"For more than twenty years I have been engaged as land surveyor and timber explorer in New Brunswick and have followed the white pine down to the mountains of North Carolina and East Tennesse and from my experience in the subject of forestry can say that the neglect of forestry in New Brunswick and Nova Scotia, as well as in the Province of Quebec, is really lamentable. In New Brunswick we make no distinction between timber and farming lands, allowing and encouraging settlers to locate themselves upon spruce and hemlock lands, the damaging result of which policy can be estimated by the loss of hundreds of thousands of dollars, while the unfortunate settler often finds himself very much worse off at the end of ten years than he was at the date of settlement. A study of New Brunswick Forestry and a proper map accompanied by a written report would show intending settlers where to place themselves; as our spruce and pine lands as well as the greater part of our hemlock lands are unfit for settlement purposes, being poor and requiring much manure to render them productive. One third of New Brunswick is in the millstone grit formation, this was once covered with spruce, pine, and hemlock, being well adapted to the growth of these trees; and had we proper forestry regulations the growth of these woods on the dry and sandy plains of the millstone grit district might be made a constant source of profit and revenue to the Province. Much of this district was destroyed by the great fire of Miramichi in 1825, and in order to show the growth of the sapling pine I may mention that four or five years ago I saw good pine logs cut on land which had been burned at that date. Tamarac roots and timber have also been cut which have grown since the date of the above mentioned fire. We have in New Brunswick very valuable tracts of hard wood lands (black birch and maple, etc.,) near railways, as well as in some localities near the sea, but we have no printed information concerning their extent or position. I think we should first find out from the explorations of competent and reliable persons in what part of the Province our valuable timber (hard as well as soft) is found, and after the matter has been well discussed, determine on what conrse of action to pursue. Until this be done it is of little use to attempt the formation of any scheme for forest preservation."

MINNESOTA LAND FRAUDS.

The *Northwestern Lumberman* says:—The Commissioner of the general land office is exerting himself actively and determinedly to root out the pre-emption fraud in the Duluth and St. Cloud land districts of Minnesota. There is a ring operating there which he proposes to break up. He proposes that while his tenure of office lasts not another acre of land shall be illegally obtained. Since the removal of the registrar and receiver at Duluth, the commissioner ordered hearings in a large number of supposed fradulent pre-emption cases. Hearings in 55 cases were had before the land officials, none of the original pre-emptors appearing. Parties who claimed to be innocent purchasers from the pre-emptors, appeared and cross-examined the witnesses for the government. The testimony showed that the pre-emptors had not attempted to comply with the law in the way of settlement. The emphatic action of the department has alarmed many of the swindlers, and in later pre-emption filings, where the parties had public notice, they failed to appear and make proof of their entries. The department will hereafter cancel entries where false affidavits have been made. This course will have a direct effect on the parties who advance funds to the tools for the accomplishment of the fraud, and they will be the heaviest losers. It is the intention to indict for violation of law and for perjury those persons who have been found in the hearings to have filed the fradulent proofs.

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c. measured and culled to Nov. 27:—

	1880.	1881.	1882.
Waney White Pine..	2,233,630	3,015,504	1,104,548
White Pine.....	4,238,087	5,640,029	7,961,695
Red Pine.....	1,045,997	1,921,868	1,456,850
Oak.....	1,708,403	2,948,295	1,313,109
Elm.....	936,324	1,027,459	714,549
Ash.....	239,272	408,582	310,769
Basswood	963	3,939	1,471
Butternut.....	645	3,033	2,639
Tamarac.....	30,863	27,150	51,975
Birch & Maple.....	585,464	151,742	209,661
Masts.....	4 pcs	25 pcs	33 pcs
Spars.....	23 pcs	— pcs	51 pcs
Std. Staves.....	195.7.1.1	404.9.1.2	513.7.0.6
W. I. Staves.....	487.7.0.8	499.0.1.10	1298.8.3.23
Brl. Staves.....	10.8.2.10	.....	76.2.3.6

JAMES PATTON,
Supervisor of Cullers.

Quebec, Nov. 10.

BAXTER'S MANDRAKE BITTERS never fail to cure Costiveness and regulate the Bowels.

SURE, safe and effectual, that old remedy, Downs' Elixir, for the cure of Coughs and Colds.

HOW IT WORKS.—Malarial Diseases, so prevalent in the Spring and Fall, such as Ague, Chill Fever, Bilious Fever, &c., depend upon an inactive state of the liver, bowels, skin, kidneys, etc., for did these outlets of morbid poisonous matter free the system properly, no sickness would result. Burdock Blood Bitters effectually regulates these organs, and corrects the absorbent and secretory system as well.

Chips.

CHAPMAN Brothers are operating in the northern part of Bay, near the Ogenaw county line, Mich., employing 140 men, and intending to cut 16,000,000 feet of logs.

IT is stated some of the mills at Manistee, Mich., are cutting and cross-piling piece stuff, expecting to realize $12 on it it in the spring, $2 better than the present price.

RUSSELL, BROWN & CHISHOLM, at Livermore Falls. Me., are making improvements in their wood pulp-mill to the extent of $20,000. The mill is being moved and new machinery put in.

IT is stated that 25 years ago a man of Winchester, N. H., sowed a worn-out pasture to pines. Now there are on the land 25,000 pine trees, ranging from eight to twenty inches in diameter.

THE cargo of walnut, ex schooner Jesse Drummond, from Chicago was sold on arrival at Quebec at $1.10 per foot. Messrs. Dobell & Co. and Messrs. Ross & Co. were the purchasers.

THE agent of the New York and Lake Champlain Transportation Company has shipped from Ottawa during the past season to the United States on American barges 16,954,571 feet of lumber.

THE Car Manufacturing Company, at Terre Haute, Ind., whose works cover 25 acres of ground, all under one roof, employs 500 hands, and when running at full capacity, turns out 300 cars per month, and 120 wheels daily.

THE Kirby-Carpenter Company lately sold the Northwestern Railway Company 350,000 ft of lumber, consisting of 2x6 stuff, and No. 2 fencing, to be used in building snow sheds in northern Iowa and southern Minnesota. The most of it was shipped to Sleepy Eye, Minn.

A MOVEMENT is afloat in Great Britain for the formation of a timber trade's association. A council of gentlemen has been formed for the purpose of constituting such an association. The secretary of the committee is S. H. Bigland, with offices at 57 Grace Church street, London, E. C.

MESSRS. H. B. Rathbun & Son, of Belleville, have secured the contract for furnishing ties to the Grand Trunk Railway Company for that part of their line between Montreal and Toronto. The number of ties required is 200,000, a large part of which will come down the Moira, Trent, and Salmon rivers.

AN East Saginaw despatch of Nov. 9th says: John McCormick, employed at Smith & Adams' lumber camp on Cedar river, was killed yesterday while at work at a skidway by logs rolling over him. The body was brought to East Saginaw and shipped to the county of Grey, Ont., where his people reside.

THE Winnipeg *Times* of Nov. 11, says:—Nearly 150,000 feet of lumber has been brought into Selkirk from the lake within the past few days, exclusive of that required for barge and boat building, and there is more on the way up. If this supply should prove insufficient for the demand more can be brought from Colville Landing as soon as the river is frozen.

A. B. LONG & Son, cut recently from one tree, in Mecosta county, Mich., eight 16-foot logs, and one 12-foot log. The firm since last May has built five miles of railroad, and put in six near-by lakes 2,000,000 feet of logs. It is calculated that the tract will cut 60,000,000 feet, 8,000,000 feet will be put in this winter.

SINCE the establishment of charcoal works at Sharbot lake a number of similar factories have been erected in the United States, and they are getting the benefit of the local factory's early experience. The factory is now making 4,000 bushels per day. There are 3,500 bushels ready to be shipped to the Kingston market. The price is 13c. per bushel.

THE *Southern Lumberman* says:—The best quality of charcoal is made from maple, oak, beech and chestnut. Wood will furnish, when properly charred, about 20 per cent of coal. A bushel of coal from pine weighs 29 lbs., a bushel of coal from hardwood weighs 30 lbs.; 100 parts of oak make nearly 23 of charcoal; beech, 21; apple, 23·7; elm, 23; ash, 25; birch, 24; maple, 22·8; willow, 18; poplar, 20; red pine 22·10; white pine, 23.

THE St. John, N. B., *News* says:—Wm. Richards is one of the chief operators on the Restigouche this year. He will probably average 3,000,000 feet of logs. Messrs. George and Robert Moffatt, J. Souberry, James Reed, and others, expect to cut more logs than last year, and the total cut on the Restigouche will fall little short of 15,000,000 feet.

THE *Timber Trades Journal* of Nov. 4, says: There has been a considerable import of miscellaneous wood goods to Clyde this week per steam liners from the States, and several cargoes of Candian timber and deals. The large arrivals of Quebec pine deals to this port during the past five weeks (amounting to about 2,500 standards) have brought the stock up to about the same quantity as was held a year ago.

A RICH body of cork pine, estimated at 100,000,000 feet, is being opened up by the building of a logging railway, 12 miles in length, from Antigo, Langlade county, Wis., on the Milwaukee, Lake Shore & Western Railway. The tract is owned by S. Bryant, of Milwaukee, Louis Sands, of Manistee, Mich., and J. H. Weed, of Oshkosk, Wis. The logs cut on the tract will be carried over the new railroad, and cut at J. H. Weed's mill, at Antigo.

THE St. Regis Falls Lumber Company proposes to build a logging road from the plant it is putting in at St. Regis Falls, N. Y., south into the forest. This line will undoubtedly be eventually extended so as to strike the Adirondack railroad. There are various rumors and conjectures as to how the company intends to "get out of the wilderness" at the north, but the Malone connection with the Ogdensburg & Lake Champlain road seems to be the favorite.

THE Winnipeg *Times* says:—The saw-mill at Brandon, which has just closed operations for the season, has gone through an amount of work which is surprising. Saw logs representing nearly 2,000,000 feet of lumber, were floated from the limits at Shell river last spring. Lumber has been cut at the rate of over 15,000 feet per day, and as high as 14,000 feet have been turned out in five hours. The total cut of this season has been over 1,800,000. Mr. Russell expects to bring to Brandon next spring saw logs sufficient to turn out 4,000,000 feet of lumber.

THE *Timber Trades Journal* of Nov. 4, says: Out of the fifty-five timber laden ships arrived in London this week, thirty-one were steamers, that continue to outnumber the sailers, which lay up now for the rest of the year after discharging. Out of this fleet the Canadian and spruce ports furnish only six vessels, while fourteen are from Cronstadt alone. Mahogany and furniture woods are also well represented in the arrivals, with a plentiful supply of deals and battens. They do not consider the importation at all excessive at the docks, and even say they do not expect the stocks will be as heavy at Christmas as they were last year.

THE *Timber Trades Journal* says:—Spruce deals at Liverpool are still reported to continue firm in the market, nor can we see any likelihood of their cheapening much for some months to come. Judging from the aspect of affairs on the west coast, we should say that heavy arrivals must come forward before any fall will be experienced, and a considerable time must almost necessarily elapse before such an event can occur. In estimating the strength of the market at Liverpool cognizance must, however, be taken of matters at the neighboring ports of Barrow-in-Furness and Fleetwood, into both of which places heavy importations of spruce are received.

THE *Timber Trades Journal* of Nov. 4, says: The continuance of westery winds has brought up a good portion of the fall fleet, and all the quays are for the present wearing a busy aspect; but when this batch is cleared off there will remain only a comparatively small quantity to come forward, especially from the St, Lawrence. There has been a fair business done during the past week, but the pressure to make sales from the ship's side rather than put the goods into yard has weakened prices so far as spruce deals are concerned. On the other hand the import of Canadian timber is held very firmly for stiff prices, owing to the moderate stocks here and the continued firmness of the attitude taken by shippers in Canada, who will without doubt have to pay high rates for next season's wood.

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Chaudiere - - - Ottawa.

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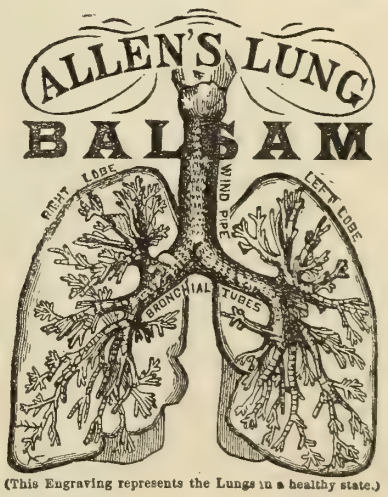

(This Engraving represents the Lungs in a healthy state.)

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TAKEN INTERNALLY, it cures Dysentery, Cholera, Diarrhœa, Cramp and Pain in the Stomach, Bowel Complaint, Painter's Colic, Liver Complaint, Dyspepsia or Indigestion, Sudden Colds, Sore Throat, Coughs, &c. Used externally, it cures Boils, Felons, Bruises, Cuts, Burns, Scalds, Old Sores and Sprains, Swellings of the Joints, Toothache, Pain in the Face, Neuralgia and Rheumatism, Chapped Hands, Frost-bitten Feet, &c.

The PAIN-KILLER is sold by medicine dealers throughout the world, Price 20c., 25c., and 50c. per bottle.

Market Reports.

TORONTO.

From our own Correspondent.

Nov. 22.—The unusually fine weather of the last two weeks has had the effect of prolonging the shipping season, and vessels are still actively employed loading at our docks here, so that more lumber will be got away than was formerly anticipated, and consequently less stock will have to be wintered over here. The demand for XXX 18 inch shingles and lath for shipment has been quite brisk and prices renumerative to manufacturers and dealers alike. The latter will now net the seller fully one-third more per M than at the same period of last season, and mill men can now manufacture lath at a profit, which has not been the case formerly, many prefering to burn up their slabs sooner than manufacture at a loss.

The retail yards are doing a good trade and few complaints are to be heard, and no surplus of stocks is to be found in any of the yards. A new retail firm has just started in the adjoining municipality of Parkdale, namely, that of I. & J. Lennox. The senior member of this firm has had ample experience and is a live pushing man, and as the business is entirely conducted by him success will doubtless follow his efforts.

The junior member of the firm of Davidson & Malcolm has retired, having been bought out by Mr. Davidson, who continues the business alone, and being a thoroughly energetic man his business is spreading out, and from personal observations I should say there is no yard of the same dimensions in thls city where more lumber goes in or out, or a safer business is carried on. Inspecting the various yards on my walks through the city I noticed also that the yard owned by Hillock & Kent carried the largest stock to the square foot of any yard in the city, and I should judge from appearances that they would be able to fill any order brought to them. Most of the other yards were low in stocks with the exception of the three mentioned. The demands of the local trade has been better met by the Railway Companies during the last week or two and it is probable most of the yards will have full stocks in after the close of navigation, but should the present mild weather continue for some time longer stocks at the mills and yards will rapidly deplete.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 50
" " " 22 ft	16 50
" " " 24 ft	17 50
" " " 26 ft	18 50
" " " 28 ft	19 50
" " " 30 ft	20 50
" " " 32 ft	22 00
" " " 34 ft	24 00
" " " 36 ft	25 50
" " " 38 ft	27 00
" " " 40 to 44 ft	32 00
Cutting up planks to dry	24 00
" boards "	18 00
Sound dressing stocks	18 00
Picks Am. inspection	30 00
Three uppers, Am. inspection	35 00@40 00

B. M.

1½-inch flooring, dressed	32 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	14 00
XXX sawn shingles, ℔ M	3 00
XX sawn shingles	2 00
Sawn Lath	2 50

MONTREAL.

From our own Correspondent.

Nov. 25.—Navigation has now closed for the season and stocks are generally well assorted, except in some of the better grades of first class lumber which are being held at high prices. The demand for hardwood is good. Ash is still enquired for by local and American buyers quite freely, and as there is only a limited quantity in first hands it will likely advance in price. There is a great scarcity of laths in the city and Ottawa manufacturers have none on hand. The American demand at this moment is quiet, but prospects are favourable for a good winter's trade both home and foreign. We note an advance in the price of lath. We quote prices in the yards as under.

Pine, 1st quality, ℔ M	$35 00@40 00
P ne, 2nd " ℔ M	22 00@24 00
Pine, shipping culls, ℔ M	14 00@16 00
Pine, 4th quality deals, ℔ M	11 00@12 00
Pine, mill culls, ℔ M	10 00@12 00
Spruce, ℔ M	10 00@13 00
Hemlock, ℔ M	9 00@10 00
Ash, run of log culls out, ℔ M	20 00@25 00
Bass, " " ℔ M	17 00@20 00
Oak, ℔ M	40 00@50 00
Walnut ℔ M	60 00 100 00
Cherry, ℔ M	60 00@00 00
Butternut, ℔ M	35 00@40 00
Birch, ℔ M	20 00@25 00
Hard Maple, ℔ M	25 00@30 00
Lath, ℔ M	1 75@ 0 00
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 50@ 0 00

LIVERPOOL MARKET FOR CANADIAN LUMBER.

The latest advices from Messrs., Alfred Dobell & Co., of Liverpool, state that imports during September have been on a more liberal scale, but are not excessive and prices have been well maintained, except for spruce deals for which lower prices have had to be accepted.

By private sale spruce deals from St. John sold at £8 10s. down to £8. Quebec waney 2s. 4d. for small average girth up to 2s. 8d. for larger sized wood.

By auction sales,—Spruce deals £8 5s. 6d @ £8 2s.

CORDWOOD.

There are few barges at the wharf, but quite sufficient for the present demand, the high prices are driving wood completely out of the market, to be superseded by coal in the near future. The dealers yards throughout the city were never so bare of stocks at this season of the year as they are at present, every one who can either buy, beg, borrow, or steal a coal stove are doing so. Prices are firm but not quotably higher. We quote ex cartage from the cars and on the wharf :

Long Maple	$7 50
Short "	7 00
Long Birch	7 00
Short "	6 50
Long Beech	6 50
Short "	6 00
Tamarack	6 00

OTTAWA.

From Our Own Correspondent.

NOVEMBER, 10.—A severe blow to the lumbering industry in this locality has been caused by the destruction by fire of E. B. Eddy's large saw mills in Hull, on the evening of Thursday, the 2nd instant. These establishments have been damaged and burned a great many times, but the last conflagration was by far the most serious, and is considered the greatest calamity that has befallen Hull for many years. The premises covered a large area, and the following buildings were destroyed :—Large sash, door and blind factory ; two large saw mills ; paper pail shop and smithy ; head offices ; pail factory and machine shop ; dressed lumber house ; storage and packing warehouse ; oil and ice house ; horse stables, and pump house.

Besides the above there was destroyed a large grist mill owned by C. B. Wright, and operated by McCormack & Son. Eddy's loss is estimated at $225,000. The large saw mill itself was valued at $80,000. The insurances amounted to $153,000.

The loss is 50 per cent of the policies. The origin of the fire is not very well known, but it is supposed to have caught under the large saw mill, from the heated shafting. The large match factory was saved, with the exception of the top story of the store house. Operations in it were recommenced yesterday, and business is again booming in that particular branch. The pail factory machinery, was partly saved and removed to another building. That portion of the machinery was immediately replaced by new machines and the manufacture of pails was begun two days after the big fire. Mr. Eddy's enterprise is so well known that it leads people to believe that before many months tall chimnies will be rearing their heads, Phœnix-like, out of the ruins of those burned, thus forming monuments that will creditably redound to the enterprise of Mr. Eddy. The insurance appraisers began their work of estimating the damage done on Monday last, but have not yet completed their labours, Not until they have finished can anything in the line of rebuilding be done. The necessary timber for the machine shop and large mill is being taken out, and these building will be commenced first. It is not known if the sash factory will be rebuilt. Mr. Eddy was in Boston on the night of the fire. He returned on the following evening. He had been unwell for some months and took a trip, thinking the change of air and relaxation from the monotony of his labors, would prove beneficial. He is keeping as well now as could be expected under the circumstances. Your correspondent saw him in his temporary office on the morning after his return. He was hard at work in the midst of telegrams and letters answering his correspondence. He was not in a position to state his intentions at the time.

An item appeared in the last issue in reference to some trouble in having the logs of a number of milling establishments navigated to their respective ponds. A reflection was cast upon the Upper Ottawa Improvement Company. This was an error arising out of unreliable information. The company were not in the least to blame.

The celebrated case of McLaren *vs* Caldwell has not come up as yet in the Supreme Court as was anticipated. Steamboats, brigs, and barges are lying up around here. Shipping operations are nearly at an end for this season Mr. M. J. Huntley, agent for the New York & Lake Champlain Transportation Company shipped from this city during the past season 1,695,457 feet of lumber ; average per load, 152,743. The first gang of men that left this locality this season for the American shanties started to-day from this city for Potsdam N. Y. They were sent by Mr. Bedouin Renaud.

George W. Hotchkiss, Secretary of the Lumberman's Exchange, Chicago, who is at present in this city was waited upon at the Russell to-day by your correspondent. During a conversation Mr. Hotchkiss explained the nature of the operations carried on in the Exhange, which is something after the nature of the Corn Exchange, but timber is not sold in the open market, but privately if at all. The association consists of about 200 members. They meet regularly and revise stock lists, which regulates the retail price all over the North West. 2,100,000 feet of lumber will be imported into Chicago this year. Mr. Hotchkiss finds the system of grading here very similar to that of Chicago, but on an average of $3 better price, owing, probably, to this place being nearer the Atlantic than they are. There is little dimension lumber here which forms the greater part of the trade in Chicago. One thing he said which will develop into a great source of wealth here is our cedar, for posts, railway ties, and shingles. 35,000 cedar ties were received in Chicago a week before he left and also 3,000,000 cedar posts.

The estimated cut of the saw mills in the Ottawa Valley for this season is 800,000,000 feet.

ST. JOHN, N. B.

From our own Correspondent.

Nov. 11.—The Lumber market is very quiet at present, most of the stock being in second hands, having been bought some time ago at prices ranging from 10 to 12 dollars per M. Freights are duller than what they were, owing, no doubt, to the fact that shippers are determined to hold what stock there is here until freight either falls or prices advance in England.

Freights to-day may be quoted as follows :—

Liverpool	67s. 6d. c. d.
Bristol Channel	67s. 6d. c. d.
Ireland	70s. to 75s. c. d.

SHIPPING.

The following is a list of the vessels in port, with their tonnage, destinations and rates of freight :—

Kambira, 2,000, Liverpool, 71s. 3d. c. d.
J. H. McLaren, 764, Liverpool, 71s. 3d. c. d.
Flying Foam, 1,284, do, 70s. c. d.
Marabout, (new), 1,497, do, 71s 3d. c. d.
Lizzie Burrill, 1,185, do, 72s. 6d. c. d.
Endora, (new), 1,142, do, 71s. 3d. c. d.
Gov. Langdon, 1,127, United Kingdom,
Althea, 376, Ireland, a/c. c. d.
Douglas Castle, 675, United Kingdom.
Brothers, 537, E. C. Ireland, 72s. 6d. c. d.
Neophyte, (new) 1,050, Cork Quay, 65s. c. d.
Progresso, 437, W. C. England, 67s. 6d. c. d.
Lady Blissington, 1,123, United Kingdom.
Pleona, 656, Carnarvon, a/c. c. d.
Uno, 824, United Kingdom.
Wenona, 522, New Zealand, a/c. c. d.
Her Majesty. 1,341

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

1881.			1882.		
Deals. M. S. ft.	*Pine. Tons.*	*Birch. Tons.*	*Deals. M. S. ft.*	*Pine. Tons.*	*Birch. Tons.*
183,313	1,290	4,308	169,072	2,154	5,936

VESSELS LOADING THIS DATE.

1881.		1882.	
Ships.	*Tons.*	*Ships.*	*Tons.*
15	14,625	17	16,540

CHICAGO.

The *Northwestern Lumberman* of Nov. 18, says :—The lumber trade at large is settling down into a steady going habit, indicative of approaching winter. One after another the mills are shutting down, and operators are becoming absorbed in providing the next log crop. Stocks of white pine are large at all the supply points east and west, though it is asserted that at Saginaw the stock of choice lumber has been nearly all picked up, leaving plenty of the coarser kind. It is undoubtedly true that the manufacturing season closes this year with a heavier surplus on hand, proportionate to the current and prospective demand, than there was at the close of the season last year, and greater than was expected by the trade. The extraordinary demand that was counted on has not been realized, and for that reason the increased output which was to supply such demand remains over as a surplus. Still there is nothing in the present appearance that should indicate that this surplus will remain as a drug in the hands of the owners. The demand that has prevailed throughout the season has been healthy, and no amount of urging and cajoling on the part of manufacturers and holders of heavy stocks has been sufficient to force a speculative tendency.

Lake receipts fairly closed on December 15, 1881 ; the receipts of the first half of that month being 40,000,000 feet of lumber and 17,000,000 shingles, while from November 15 to December 15 the receipts aggregated 128,337,000 feet of lumber and 63,573,000 shingles. Present indications are no less favorable than at the same time last year for a continuance of navigation to the middle of December. As is always the case at this time in the season, many vessels are withdrawing to winter quarters, and lake freight rates are tending upward.

CARGO QUOTATIONS.

Short dimension, green	$11 00@11 50
Long dimension	12 50@14 00
Boards and strips, No. 2 stock	12 25@14 50
No. 1 stock	15 00@22 00
No. 1 log run, culls out	17 00@23 00
Standard shingles	2 65@ 2 00
'A'	2 70@ 2 95
Clear	0 00@ 3 25
Lath	0 00@ 2 25

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending Nov., 19, as reported by the Lumberman's Exchange :

	RECEIPTS. *Lumber.*	*Shingles.*
1882	48,271,000	30,162,000
1881	48,617,000	20,390,000

FROM JANUARY 1 TO NOVEMBER 21 INCLUSIVE.

	RECEIPTS. *Lumber.*	*Shingles.*
1882	1,916,502,000	826,623,000
1881	1,756,315,000	774,028,000
Inc	157,187,000	52,595,000

LAKE RECEIPTS TO NOV. 15.

1882	1,668,301,000	745,077,000
1881	1,559,779,000	674,433,000

STOCK ON HAND OCT. 1.

	1882.	1881.	1880.
Lumber	660,118,942	541,763,015	467,966,545
Shingles	265,189,150	241,455,200	173,753,000
Lath	52,267,802	38,333,925	48,755,681
Pickets	3,368,270	2,788,430	2,193,317
Cedar posts	161,719	211,048	67,006

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

OSWEGO, N. Y.

Three uppers	$42 00@45 00
Pickings	32 00@35 00
Fine, common	20 00@25 00
Common	14 00@16 00
Culls	11 00@13 00
Mill run lots	17 00@22 00
Sidings, selected, 1 inch	30 00@37 00
1½ inch	30 00@37 00
Mill run, 1x10, 12 inch	16 00@21 00
selected	20 00@25 00
Strips, 1 and 1½ inch mill run	14 00@18 00
" " " culls	10 00@13 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	4 00@ 4 40
XX, " "	3 00@ 3 40
XXX, 18 inch, cedar	3 25@ 3 50
XX " "	2 30@ 2 50
Lath	1 90@ 2 00

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ₱ M.	$57 00@64 00
Pine, fourths.	57 00@59 00
Pine, selects.	52 00@54 00
Pine, good box.	22 00@35 00
Pine, 10-in. plank, each	00 42@00 45
Pine, 10-in. plank, culls, each.	00 22@00 25
Pine boards, 10-in.	00 28@00 32
Pine, 10-in. boards, culls.	00 20@00 21
Pine, 10-in. boards, 16 ft., ₱ M.	30 00@35 00
Pine, 12-in. boards, 16 ft.	30 00@34 00
Pine, 12-in. boards, 13 ft.	27 00@29 00
Pine, 1¼ in. siding, select.	45 00@47 00
Pine, 1¼-in. siding, common.	18 00@20 00
Pine, 1-in. siding, select.	45 00@47 00
Pine, inch siding, common.	18 00@20 00
Spruce, boards, each.	00 00@00 16
Spruce, plank, 1¼-in., each.	00 00@00 20
Spruce, plank, 2-in., each.	00 00@00 30
Spruce, wall strips, each.	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each.	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each.	00 00@00 11
Ash, good, ₱ M.	40 00@43 00
Ash, second quality, ₱ M.	25 00@30 00
Cherry, good, ₱ M.	60 00@85 00
Cherry, common, ₱ M.	25 00@35 00
Oak, good, ₱ M.	40 00@43 00
Oak, second quality, ₱ M.	20 00@25 00
Basswood, ₱ M.	25 00@30 00
Hickory, ₱ M.	40 00@40 00
Maple, Canada, ₱ M.	28 00@30 00
Maple, American, per M.	26 00@28 00
Chestnut, ₱ M.	35 00@40 00
Shingles, shaved, pine, ₱ M.	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear,	0 00@ 3 60
" cedar, mixed.	0 00@ 3 60
" cedar, XXX.	0 00@ 4 00
" hemlock.	0 00@ 2 50
Lath, hemlock, ₱ M.	0 00@ 2 00
Lath, spruce, "	0 00@ 2 25
Lath, pine, "	0 00@ 2 50

BOSTON.

CANADA PINE.

Selects, Dressed.	$48 00@50 00
Shelving, Dressed, 1sts.	40 00@42 00
" " 2nds.	33 00@35 00
Dressed Shippers.	27 00@29 00
Dressed Box.	18 00@20 00
Sheathing, 1st quality.	42 00@45 00
" 2nd "	34 00@35 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers.	$43 00@46 00
Common.	18 00@24 00
Culls.	12 00@14 00

LONDON.

The *Timber Trades Journal* of Nov. 11, says: The arrivals in London this week do not furnish any formidable addition to the supply of timber, though thirty-eight vessels, of which twenty were steamers, brought forward quite as much as the market has at present any occasion for. About a third of the fleet is from Russia and Finland, several large ships from Quebec and the lower ports, and a cargo of pitch pine, which is rather a novelty of late. For the rest, deals and battens form the staple article; but there is also a cargo of flooring from Christiania. Spruce is hardly so firm as it was a short while since, and the Miramichi parcel, ex Coban, in very attractive sizes, did not realize by 5s. to 10s. a standard what similar goods fetched a month ago. The heavy arrivals from the lower ports with whitewood have caused a slight depression in the spruce market.

LIVERPOOL.

The *Timber Trades Journal* of Nov. 11, says: The import from Quebec may be considered as nearly over, comparatively few vessels remaining now to complete the year's work. Prices continue high, and are likely to do so for the remainder of the season, and from latest advices from Canada there appears every likelihood that stiff prices for next year's production will again be the rule, as the great cost of labor and the increased value of timber lands in Canada become more and more apparent every year. Sales of quantities of oak, pine, and other kinds of wood have been made recently by private treaty at extreme prices.

GLASGOW.

The *Timber Trades Journal* of Nov. 11, says: There has been a light import of wood goods to Clyde ports during the past week. This year's total arrivals from Quebec will, it is evident, be considerably under the average quantity. The falling off is in log timber, particularly yellow pine logs, the import of which is about 17,000 pieces under last year.

The stock of American spruce deals in Clyde ports at present is light, but the large supply of white deals at Grangemouth (imported from the Baltic) has a depressing effect on prices.

U. S. LUMBER INDUSTRIES.

The Brooklyn *Eagle* says:—In volume of lumber production the States stand in the following order: Michigan, Pennsylvania, Wisconsin, New York, Indiana, Ohio, Maine, Minnesota, Iowa, Missouri, Illinois, Georgia, California, Kentucky, New Hampshire, Tennessee.

There are 25,708 lumber manufacturing establishments in the country, employing a capital of $181,186,122 and 141,564 male hands above the age of 16 years, 325 female hands below the age of 15 years, 5,967 children and youth. The value of the logs was $139,836,869; the mill supplies were valued at $6,318,516; the wages paid during the year amounted to $31,845,974; the amount of lumber manufactured (board measurement) was 18,091,656,000 feet, producing 1,731,788,000 laths, 5,555,046,000 shingles, 1,248,226,000 staves, 146,523,000 set of headings, 34,076,000 feet of spool and bobbin stock; value of all other products, $2,683,668; total valve of all products, $233,367,729.

New York State has 2,822 manufacturing establishments; capital invested, $13,230,934; hands employed, 17,509; value of logs, $8,628,874; value of mill supplies, $490,389; wages paid during the year, $2,162,972; feet of lumber manufactured, 1,184,220,000; number of laths, 79,399,000; number of shingles, 305,711,000; number of staves, 62,645,000; number of set headings, 22,136,000; feet of spool and bobbin stock, 1,003,000; value of all other products, $285,263; total value of all products $14,356,910. New Jersey ranks thirty-second in the producing area of the States.

For Winnipeg.

The Thunder Bay *Sentinel* says:—Coal is selling to-day in Winnipeg, the metropolis of the North West, at $13.25 delivered. Only three weeks ago the same coal was fetching $18.75 per ton, and this time last season, from $19 to $23.50. This great change is brought about by the opening of the Thunder Bay branch of the C. P. R., and the consequent reduction in freight rates thus giving one of the greatest boons to both rich and poor of that city that has yet been conferred upon them, and no doubt but that next season as good an effect will be produced in relation to lumber, as those engaged in supplping the lumber from the Georgian Bay markets are fully alive to the great advantages offered them, and are making arrangements for the shipment of large consignments at the opening of navigation. Mr. Geo. Graham is foremost on the field in the matter of supplying this lumber to the western market. He will have between two and three million feet here before the close of the season, all of which he will get over the line of the C. P. R. during the coming winter.

Leather Belting.

We are pleased to notice that Robin & Sadler, of Montreal, have again taken first prize for leather belting and leather copper riveted hose, at the Provincial Exhibition, Montreal. This is the third year in succession that they have carried off first prize against all comers. This firm has acquired an enviable reputation for making large double driving belts. They have supplied a 36 inch double belt for the Hudson's Bay Company; the same width of belt for the Winnipeg mill, of Messrs A. W. Ogilvie & Co., and the Stormont Cotton Mill Co., besides a great number of other large belts for various mills and public works. They are now making 32 inch and 26 inch double belts for the St. John Cotton Mill Co., and Wm. Parks & Son, St. John, N. B. The United States used to claim the chief merit for producing these large belts, but now this Canadian firm bids fair to outrival any United States production in their line of business.

Logging Railways.

The *Northwestern Lumberman* says:—Besides the eight miles of logging railway connecting the mill with the timber belonging to the Shell Lake Lumbering Company, in Wisconsin, the seven miles of road being built by R. M. Forsman and W. T. Price, to tap 70,000,000 feet of pine on the Eau Claire, and the road of N. C. Foster, of Fairchild, the Mississippi River Logging Company and the Chippewa Logging Company are building another. It will run from the Chippewa, near Amacon lake, six miles above Big Bend, into the timber recently purchased from the Cornell University, which embraces about 600,000,000 feet. The haul will be seven miles. The two companies have united in this enterprise in preference to improving Potato creek, the Soft Maple branches and other small tributaries, for the road is the most certain means of getting the logs to the main river. The rail is rapidly superceding the old methods of logging.

JONES & SON,

Wholesale Lumber & Timber Dealers

39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut

And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.

Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.

L7

NOVEL TIMBER RAFT.

An improved method and apparatus for coupling gangs of logs for timber rafts, so that they may be easily and effectively bound together in a raft, has been patented by Mr. Robert E. Terry, of Bay Minette, Ala. One end of each log is bored through near its end for the passage of an iron rod, that may be of any desired length. It is provided at its ends with nuts for holding the side logs upon the rod. The opposite ends of the outside logs are then bored for the passage of a similar rod. This rod when it is placed passes through the ends of the outside logs and over the ends of the inner logs, and when in this position one end of a small rod or wire is secured to the rod and then wrapped around each log and over the rod, and finally secured to the rod. A raft of logs formed in this manner binds all the logs firmly together, obviating all danger of the loss of logs, and is not expensive, as the rods and wire are not snbject to wear, and may be used over and over.—*Scientific American.*

Free Canals in New York.

The *Northwestern Lumberman* says:—The result of the late election in New York insures free canals in that state. This is of great significance to the lumber trade of the Saginaw district, and all points in the East, as well as to the trade of Canada. The abrogation of tolls on the Erie canal and its collateral water-ways will cheapen freights, and thereby reduce the price of pine lumber in Albany, New York, Boston, and all places east that depend on Michigan pine. Indirectly it may have a good effect on Chicago trade, for the Saginaw and eastern Michigan lumbermen were making ready for working some of their coarse lumber into the Chicago market, for the reason that Canadian lumber of the coarser grades has become a damaging competitor in the eastern markets, and the Saginaw men desire a western outlet for their inferior stock, which is now increasing in the annual percentage of their output.

The Prospects.

It seems almost certain that the demand for lumber will be as large, or larger, the coming year as it has been during the present one. But it will not be so large but that the supply could be made to exceed it. Here lies the principal danger in future operations. At the rate loggers are going into the woods this fall, and new mills are being erected, a possibility exists of over production. Should the operators in logs, and manufacturers pass the bounds of prudence in the output of 1883, it is to be hoped that the trade at large will play with the bait till the season opens next spring before they take it in, hook and all, as they did last fall and winter.—*Northwestern Lumberman.*

ARRIVED AT QUEBEC.

The *Chronicle* gives the following list of rafts etc., arrived at Quebec :—

Nov 7—McAllister & Kelly lot, black walnut, Point-au-Pizeau.

J McRea & Co., oak, elm, &c, Point-au-Pizeau.

McArthur Bros, staves, New London Cove.

John McRae & Co, staves, Point-au-Pizeau.

Nov. 13—McArthur Bros, staves, New London cove.

Buried Forests.

It is stated that the geological examinations of the Deltas of the Mississippi now show that for a distance of about 300 miles there are buried forests of large trees, one over the other, with interspaces of sand, Ten distinct forest growths of this description are said to have been observed, which is believed must have succeeded each other. Of these trees, known as the bald cypress, some have been found over 25 feet in diameter, and one contained 5,700 rings. In some instances, too, huge trees have grown over the stumps of others equally large. From these facts, geologists have assumed the antiquity of each forest at 10,000 years, or 190,000 for all.—*Northwestern Lumberman.*

AN ADMONITION.—To neglect a cough or cold is but to invite Consumption, that destroyer of the human race. Hrgyard's Pectoral Balsam will cure the cough and allay all irritation of the bronchial tubes and lungs, and effectually remedy all pulmonary complaints, such as Asthma, Bronchitis, Whooping Cough, etc.

A BIG INVESTMENT.—G. M. Everest, of Forest, states that Hagyard's Pectoral Balsam still holds its own amongst the many cough medicines in the market. He says that he has sold it for nearly sixteen years, and the sales are steadily increasing. One family has purchased over 50 bottles for various members and friends.

DAVY & CLARK, Druggists, Renfrew, date of June 3rd, write:—"Burdock Blood Bitters, though comparatively a new preparation, has taken the lead in this locality as a blood purifier, our sales of it being equal to that of all other medicines used for the purpose during the last year."

PHYSICIANS and druggists have been in the habit of charging patients and customers more than many of them are able to pay. We are glad to inform our readers that Mack's Magnetic Medicine is sold at the low price of fifty cents a box, a quantity sufficient to last over two weeks. Read the advertisement in another column.

A SECRET.—The secret of beauty lies in pure blood and good health; without the one the other is impossible. Burdock Blood Bitters is the grand key that unlocks all the secretions, and opens the avenue to health by purifying and regulating all the organs to a proper action It cures all Scrofulous Diseases, acts on the Blood, Liver, Kidneys, Skin and Bowels, and brings the bloom of health to the pallid cheek.

BOY INVENTORS.

The *Christian Advocate* justly considers that a boy's elders are guilty of a foolish act to snub him when he says or does something which they don't understand. A boy's personality is entitled to as much respect as a man's, as long as he behaves himself. In the following anecdotes wise and foolish elders are exhibited—one class respecting, and the other despising a boy.

Some of the most important inventions have been the work of boys. The invention of the valve motion to the steam engine was made by a mere boy.

Newcomen's engine was in a very incomplete condition, from the fact that there was no way to open or close the valves, except by means of levers operated by hand.

He set up a large engine at one of the mines, and a boy, Humphrey Potter, was hired to work these valve-levers; although this is not hard work, yet it required his constant attention.

As he was working the levers, he saw that parts of the engine moved in the right direction, and at the same time he had to open or close the valves.

He procured a strong cord, and made one end fast to the proper part of the engine, and the other end to the valve-lever; and the boy then had the satisfaction of seeing the engine move with perfect regularity of motion.

A short time after the foreman came around and saw the boy playing marbles at the door. Looking at the engine he saw the ingenuity of the boy, and also the advantage of so great an invention. The idea suggested by the boy's inventive genius was put in a practical form, and made the steam engine an automatic working machine.

The power loom is the invention of a farmer's boy who had never seen or heard of such a thing.

He whittled one out with his jack-knife, and after he had got it all done, he, with great enthusiasm, showed it to his father, who at once kicked it to pieces, saying that he would have no boy about him that would spend his time on such foolish things.

The boy was sent to a blacksmith to learn the trade, and his master took a lively interest in him. He made a loom of what was left of the one his father had broken up, and showed it to his master.

The blacksmith saw he had no common boy as an apprentice, and that the invention was a valuable one. He had a loom constructed under the supervision of the boy. It worked to their perfect satisfaction, and the blacksmith furnished the means to manufacture the looms, and the boy received half the profits.

In about a year the blacksmith wrote to the boy's father that he should bring with him a wealthy gentleman who was the inventor of the celebrated power loom.

You may be able to judge the astonishment at the old home when his son was presented to him as the inventor, who told him that the loom was the same as the model that he had kicked to pieces but a year ago.

Our Patent Office shows many ingenious and useful inventions made by minors and women, and the above list of important inventions made by boys might be largely increased did space permit.

HE BUCKED.

THE DANGER OF RIDING TEXAS PONIES—GREAT EXCITEMENT ON MONTGOMERY STREET—A HAPPY THOUGHT AND A HAPPY MAN.

(*San Francisco Evening Post.*)

It is a fact beyond dispute that the average Texas pony is uncertain. As a general thing a Texas charger can be relied on, sooner or later, to indulge in his little act, popularly known on the plains as "bucking." You can't cultivate the pony sufficiently to induce him to forget it. It is in his blood and he sticks to it by the power of heredity. He would probably go without his hay for a whole day sooner than throw away a good opportunity to "buck." It is a part of his life, and the chief article in his creed. In short, a Texas pony which won't buck is not a Texas pony at all. He is a nondescript and unworthy to be credited to the Lone Star State. Mr. George Ridgeway, residing on Jefferson street, Oakland, will probably endorse the above heartily. At any rate the accident which befell him this morning would seem to be a sufficient guaranty for such inference in the minds of observers, for Mr. Ridgeway narrowly escaped death. As it is well known, this gentleman is a finished horseman, and is fond of riding spirited animals. This morning about 8 o'clock he rode up Montgomery street at a very rapid pace. When opposite F. Garcia & Co.'s restaurant, popularly known as "Frank's," Mr. Ridgeway suddenly checked his horse and attempted to wheel. But the pony grew obstinate and refused to obey the will of the rider. Mr. Ridgeway attempted to force the horse, but the perverse product of the pampas declined to be enforced, and then ensued a struggle for the mastery between horse and rider. True to his instincts the pony finally prepared a *coup d'etat*, and won the victory. Jumping into the air, the devilish creature stiffened his legs, humped his back until he described an inverted U, came down on the street with all four feet at one time, plunged his head between his forelegs, and the act was complete. Mr. Ridgeway struck the ground about six feet in front of his horse. He was insensible. A large crowd of excited people was attracted to the spot. Kind hands tenderly lifted the unconscious sufferer and carried him into Frank's. A messenger was despatched for a physician. In the meantime restoratives were applied, and every means known to those present resorted to for his resuscitation. In a short time Mr. Ridgeway showed signs of returning consciousness, and moaned in great pain. Regaining the power of speech the hurt gentleman said: "For God's sake do something to relieve this horrible pain in my shoulder. It is killing me. Have you a bottle of St. Jacobs Oil in the house?"

"Just the thing!" said Mr. Garcia. "I have some of the oil conveniently at hand."

The sufferer was denuded of his clothing, and his right shoulder was found to be badly bruised. Quick hands applied the great remedy which is now creating such a sensation on the coast, and in an incredibly short time Mr. Ridgway began to show signs of satisfaction. Soon he said that the pain was greatly selieved, and the application of nearly a whole bottle took away all the pain and reduced the swelling which had commenced when they began applying the Oil. Examination revealed the fact that Mr. Ridgeway had not sustained a fracture in any of his bones, and he remarked subsequently as he was sipping a glass of "imperial punch," that St. Jacobs Oil had doubtless saved him great and protracted suffering. Calling at a neighboring drug store, Mr. Ridgeway secured several bottles of this wonderful healing substance and went home. The doctor arrived too late to see the patient.

The exhibition of such wonderful power by the St. Jacobs Oil set all tongues wagging, and many gentlemen present expressed astonishment at the amazing result of its application, Mr. Garcia explained that the Oil was reputed to be almost miraculous in its action in some cases, and the incident of this morning was simply a verification of what he personally knew of it, as well as what was stated of it by persons of his acquaintance. He thought so highly of its splendid curative properties in all cases of pains and hurts that he never failed to keep some of it on hand. Mr. Ridgeway would doubtless feel a little shaken up by his fall for a few days, but several more applications of the remedy would undoubtedly place his shoulder all right.

The reporter was greatly interested in what he had witnessed and resolved to learn more about the performance of the great remedy. Meeting M. Robert Young, a printer in the Mercantile Agency, and residing at No. 320 California street, the question of the healing power of St. Jacobs Oil was introduced. Mr. Young immediately and emphatically bore strong testimony in its favor. "Why, sir," said he, "I had been troubled a long time with stiffness of the neck. It was especially severe when I took cold. I had also suffered with rheumatic pains in my shoulders. It is, therefore, with feelings of gratitude that I say that the St. Jacobs Oil relieved me of every pain and ache. I most heartily recommend it as a superb relievant."

During the morning the reporter's duties called him to North Beach. While there he met Mr. Charles Schwartz, proprietor of the North Beach Chowder House, No. 2,209 Powell street. The following conversation ensued:

"Mr. Schwarz, do you known anything about St. Jacobs Oil?"

Well, I should say so! It is just the grandest remedy for rheumatism ever made!"

"Have you used it, sir?"

"Used it! Yes, it has been a standing remedy in my house for two years. There is nothing like it. We could not well get on without it. It cures my people of rheumatism, burns, bruises and every kind of ache or pain. Then my neighbors use it too. I always have several bottles in my house, and it frequently happens that persons call for it in sudden emergencies. Only a few days since a drayman got badly hurt, and I sent out a bottle of St. Jacobs Oil. They rubbed it on him and it took away the pain. The man was very grateful and said it was the best stuff in the world."

The reporter stepped in at the popular pharmacy of A. Adolph Boyken, the corner of Ninth and Mission streets, and asked the proprietor if he had much call for the St. Jacobs Oil. Mr. Boyken replied:

"The Great German Remedy, St. Jacobs Oil, has been having a big sale with me lately, and my customers are high in their praises of it as a conqueror of pain."

AN AGED SYCAMORE.

The Sears farm at Harlem, Ohio, is located on both sides of a creek, and in clearing the field of debris from the floods, recently, preparatory to sowing the fall wheat, a big sycamore log, 50 to 60 feet long and five feet in diameter, was sawed into several pieces. About 15 feet from the point where the tree had apparently broken off, from being girded, the initials W. G. and E. S., were found carved in the wood with the date of 1718. The letters and figures were perfectly legible, and the wood has no evidence of decay. The tree is supposed to have stood along the banks of Second Creek, in Clinton county, having been washed down on the farm by the heavy floods. Allowing that the person doing the carving was honest in his intentions, and did not misrepresent the period in which he lived by substituting for it that of his forefather's, the matter is considerable of a puzzle to the natives of the region. Giving the date the benefit of the doubt, the tree is 164 years old, while the earliest settlement in the state of Pennsylvania was not made till 1788, and Clinton County was not settled till several years after. Unless somebody has lied, the carving evidently was the work of some white man, and one who knew how to make letters pretty well. The tree in its growth, after the carving, did not obliterate them, which shows that the carving was deep and intended for a purpose.

Height of Buildings.

In the Insurance Cyclopedia, Mr. Walford mentions the Swedish law which came in force in 1875, and prohibited the erection of buildings in cities and towns of a height more than five feet above the width of the street on which they are built. A wise precaution, says the *American Exchange*, to secure proper ventilation and avert the spread of conflagrations, and which somewhat qualifies Capt. Shaw's rule that the safety or saving of the individual ignited building is indirectly in the ratio of the height to area or cubic content under equal combustible conditions otherwise. This is part of the question, whether we shall in the future build *cities*, or continue, as in the past, to build capricious individual structures.

Russian Floors.

The finest floors are said to be seen in Russia. For those of the highest grade tropical woods are exclusively employed. Fir and pine are never used, as, in consequence of their sticky character, they attract and retain dust and dirt, and therefore soon become blackened. Pitch pine, too, is liable to shrink, even after being well-seasoned. The mosaic wood floors in Russia, are often of extraordinary beauty. One in the Summer Palace is of small squares of ebony inlaid with mother-of-pearl. A considerable trade is done in Dantzic and Riga by exporting small blocks of oak for parquet floors. There is an active demand for these in France and Germany, but none in England.

THE new mills at Portneuf *en bas* are being erected by the Dominion of Canada Freehold Estate and Timber Company, limited. They are pulp mills, three in number. A new saw mill will be erected next year. The machinery is from Messrs. Carrier, Laine & Co.

ST. JACOBS OIL

TRADE MARK.

THE GREAT GERMAN REMEDY.

FOR

RHEUMATISM,

Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,

Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

No Preparation on earth equals ST. JACOBS OIL as a *safe, sure, simple* and *cheap* External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

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CONSUMPTION

POSITIVELY CURED.

All sufferers from this disease that are anxious to be cured should try **Dr. Kissner's Celebrated Consumption Powders.** These powders are the only preparation known that will cure consumption and all diseases of the **Throat and Lungs**—indeed, so strong is our faith in them, and also to convince you that they are no humbug, we will forward to every sufferer, by mail, post paid, **a Free Trial Box.**

We don't want your money until you are perfectly satisfied of their curative powers. If your life is worth saving, don't delay in giving these **Powders** a trial, as they will surely cure you.

Price for large box $3.00, sent to any part of the United States or Canada, by mail, on receipt of price. Address

20L24 ASH & ROBBINS, 360 Fulton Street, Brooklyn, N. Y.

A CURE GUARANTEED.

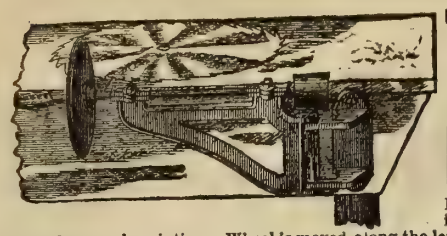
MACK'S MAGNETIC MEDICINE.

For Old and Young, Male and Female.

Positively cures Nervousness in all its stages, *Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Spermatorrhœa, Seminal Weakness, and General Loss of Power.* It repairs *Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs in either Sex.* ☞With each order for TWELVE packages, accompanied with five dollars, we will send our Written Guarantee to refund the money if the treatment does not effect a cure. It is the **Cheapest and Best** Medicine in the Market. ☞Full particulars in our pamphlet, which we desire to mail free to any address.

Mack's Magnetic Medicine is sold by Druggists at 50 cts. per box, or 6 boxes for $2.50, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont.

Sold by all Druggists in Canada. L23



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HODGSON'S
Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Weisport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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SAW MILLS!

Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,
ST. THOMAS, ONTARIO.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills
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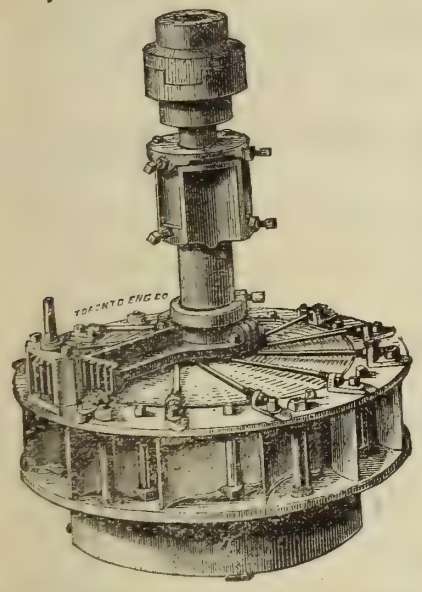
15,000 IN USE!



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Double Turbine Water Wheel,

All Sizes of Stationary and Portable Engines and Boilers, Shafting, Pulleys, Hangers, Gearing, latest improved English and American Gangs.

The Steam's Circular Saw Mills with Fractional Head Blocks and King of Dogs—this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Specialty.

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Permanently Cured—No Humbug—by one Month's usage of Dr. Goulard's Celebrated Infallible Fit Powder. To convince sufferers that these powders will do all we claim for them we will send them by mail, **post paid, a free Trial Box.** As Dr. Goulard is the only physician that has ever made this disease a special study, and as to our knowledge thousands have been **permanently** cured by the use of these **Powders. We will guarantee a permanent** cure in every case **or refund you all money expended.** All sufferers should give these powders an early trial, and be convinced of their curative powers.

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Foo Choo's Balsam of Shark's Oil

Positively Restores the Hearing, and is the only Absolute Cure for Deafness known.

This Oil is abstracted from peculiar species of small **White Shark,** caught in the Yellow Sea, known as CARCHARODON RONDELETII. Every Chinese fisherman knows it. Its virtues as a restorative of hearing were discovered by a Buddhist Priest about the year 1410 Its cures were so numerous and **many so seemingly miraculous,** that the remedy was officially proclaimed over the entire Empire. Its use became so universal that for **over 300 years no Deafness has Existed among the Chinese People.** Sent, charges prepaid, to any address at $1.00 a bottle.

Hear What the Deaf say!

It has performed a miracle in my case.
I have no unearthly noises in my head and hear much better.
I have been greatly benefited.
My deafness helped a great deal—think another bottle will cure me.

"Its virtues are UNQUESTIONABLE and its CURATIVE CHARACTER ABSOLUTE, AS THE WRITER CAN PERSONALLY TESTIFY, BOTH FROM EXPERIENCE AND OBSERVATION. Write at once to HAYLOCK & JENNEY, 7 Dey Street, New York, enclosing $1.00, and you will receive by return a remedy that will enable you to hear like anybody else, and whose curative effects will be permanent. You will never regret doing so."—*Editor of Mercantile Review.*

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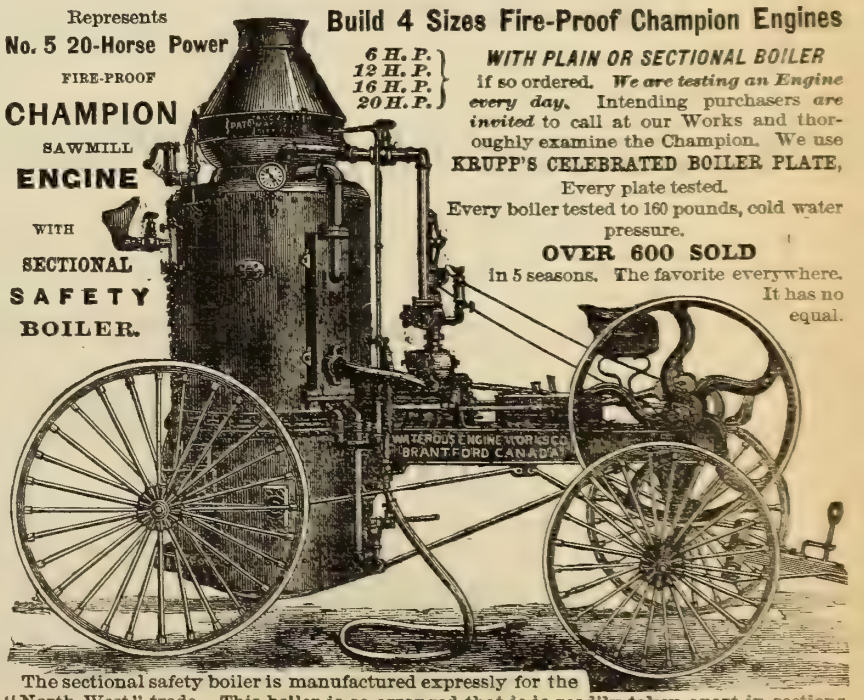
WITH PLAIN OR SECTIONAL BOILER if so ordered. *We are testing an Engine every day.* Intending purchasers *are invited* to call at our Works and thoroughly examine the Champion. We use KRUPP'S CELEBRATED BOILER PLATE, Every plate tested. Every boiler tested to 160 pounds, cold water pressure.

OVER 600 SOLD in 5 seasons. The favorite everywhere. It has no equal.



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These Wheels are Wire Strengthened

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September 28th, 1882. 1yl13

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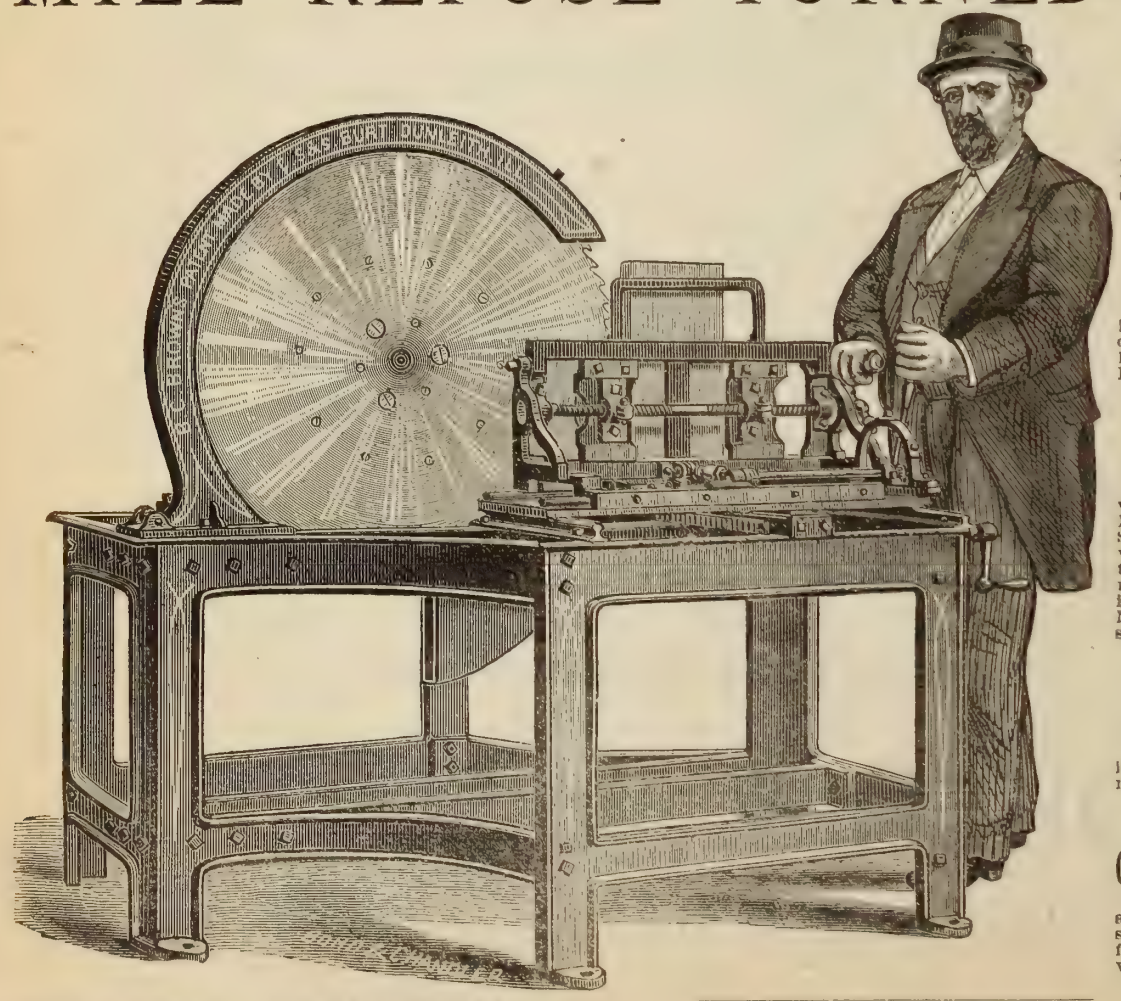

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Brown's Patent Spalt and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c., from spalts, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion; have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out; sixteen 16 ft. boards, or eighteen 13 ft. boards, have been cut by it in one minute. It is the established feed for steam mills; I make a specialty of its manufacture; will guarantee satisfaction.

Our Patent Twin or Span Circular,

with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab logs 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Trenton, and Georgian Bay Lumber Co's Mill, Waubaushene and Port Severn. ☞ I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise; I keep it constantly on hand, ready for immediate shipment.

Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.

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THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION $2.00 PER ANNUM.

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THE RINGS OF TREES NO INDEX TO THEIR AGE.

The London *Timber Trades Journal* says:—An important discovery appears to have been recently made, that is calculated to upset a theory which has hitherto been accepted as furnishing an authentic rule for ascertaining the age of trees.

We take the following from the CANADA LUMBERMAN, a very well conducted paper, which seems to take particular care to keep its readers well-posted up as to the state of timber ber trade in the British Isles. It is published at Peterborough (capital of the county of that name, in Ontario), and claims to be "the only newspaper devoted to the lumber and timber industries published in Canada."

"An interesting observation on tree rings is recorded by Professor Bachelart, in *La Nature*. During a visit to the ruins of Palenque, Mexico, in 1859, M. Charnay caused all the trees that hid the facade of one of the pyramids of the palace to be cut down. On a second visit, in 1880, he cut the trees that had grown since 1859, and he remarked that all of them had a number of concentric circles greatly superior to their age. The oldest could only have been twenty-two years of age, but on a section of one of them he counted 250 circles; the tree was 60 to 65 ctm. (about 2 English feet) in diameter. A shrub, eighteen months old at most, had 18 concentric circles."

"M. Charnay found the case repeated in every species and in trees of all sizes. He concluded that in a hot and moist climate, where nature is never at rest, it may produce, not one circle a year, as with us, but one a month. The age of a monument has often been calculated from that of trees that have grown on its ruins. For Palenque, M. Larainzar calculated 1,700 years, having counted 1,700 rings in a tree. M. Charnay's observations require the number to be cut down to 150 or 200 years, making a considerable difference—1,500 years. Prof. Bachelart asks whether M. Charnay took account of certain coloured rings which some tropical trees present in cross section, and which are to be distingushed from the annual circles."

If this be so—and it must be observed we have only one witness yet—the learned in arboriculture, ancient and modern, have been at least doubtful, if not false, teachers. And if this deviation from the old rule is peculiar to "hot and moist climates," where shall we draw the line? There must be some intermediate stage of average barometrical temperature at which this perplexing change commences in the development of tree growth, or is the whole hypothesis imaginary, and no rule at all?

This important question cannot be allowed to remain in its present unsatisfactory state. The account given by M. Charnay, as recorded by Professor Bachelart, will have to be either contradicted or confirmed; and a very pretty controversy among adepts, or, as is now the fashion to call them, experts, is likely to result from it. The able and experienced authorities who instruct us on the peculiarities of vegetable growth in the pages of our very useful contemporary, the *Journal of Forestry*, will doubtless take up the subject and sift it to the bottom. It seems almost impossible that two theories so opposite to each other can both be true; and, if there be found a connecting link between them, how shall we know to which side of it our specimen may belong? Hitherto these "concentric circles" in trees were as religiously believed in as the revolutions of the planets. Are we now to unlearn all we have been taught about them?

FORESTS AND CLIMATE.

A paper has been prepared by Dr. Schomburgk, the Director of the Botanical Gardens at Adelaide, on the influence of forests on climate. The object of the author is to prove that the destruction of forests usually has the effect of reducing the rainfall, while, on the contrary, the planting of trees broadcast over a country is one of the best metnods which can be adopted for ameliorating its climate and increasing the annual fall of rain. It cannot, indeed, be proved that the climate of South Australia is altering for the worse in this respect. In fact, a comparison of the meteorological records will show that the annual average rainfall for the colony during the past ten years has been 21·1 inches, as compared with 20·1 inches for the previous ten years. The fact is, that in the agricultural districts of the colony, and especially in those which were not originally timbered, the bringing of the land into cultivation has had the effect of slightly favouring the fall of rain. Plowed land attracts moisture to a much greater degree than unbroken soil. In considering the effect which the removal of the forests *per se* has in altering the climate in South Australia, the only direct test that could be taken from the records issued by the Government Astronomer is the experience of the neighborhood of Adelaidé. If the time is divided which has elapsed since 1839, the year in which observations were commenced, into two periods, there is found for the first an average rainfall of 22·8 inches, and for the second one of 21·7 inches. It will thus be seen that, on the whole, the rainfall at Adelaide is diminishing, though very slightly, and perhaps the diminution in the amount of timber may have something to do with the change. Dr. Schomburgk, in searching for illustrations of the effect of trees on climate, goes further afield, and brings forward some striking instances, in which it is evident that loss of forest means loss of rainfall, and *vice versa*. He recalls how the Russians, by burning down some of Transcaucasian forests at the time of the struggle with the Circassians, converted the country from a fertile land into a desert, simply through the cutting off of the supply of rain. Similar instances of rain having deserted a country denuded of forests have occurred in the Mauritius, in Jamaica, the Azores, and, it may be also added, to a still more remarkable extent in several of the smaller West India islands. No sooner had the forests of these places been destroyed than the springs and rivulets ceased to flow, the rainfall became irregular, and even the deposition of dew was almost entirely checked. On the other hand, it is generally accepted as a fact that Mehemet Ali increased the fertility of Egypt enormously by planting trees. He alone planted some 20,000,000 on the Delta; his successors followed up the work, and it is a noteworthy circumstance that the rainfall rose from six to forty inches. Planting has also, it would seem, produced remarkable effects in France and Algiers. Extensive regions have been planted with gums and other trees, which, for the most part, grew to about 30 feet or 40 feet in height, and it is noticed that the quantities of rain and dew which now fall on the adjacent land are double what they formerly were.—*Architect.*

WINNIPEG LUMBER INTEREST.

The Winnipeg *Commercial* of the 21st of Nov. has an article on the extent of the local lumber trade during the past season and its prospects in the suceeding one, in which, after warning its readers that its "figures only respresent sawed and dressed lumber, which has been or is being used for building and such purposes," it goes on to say:—

"In local manufactures only one saw mill has has run steadily during the season, and its products since the opening of 1882, amount to 9,000,000 feet, 1,000,000 of which was oak. Other two manufacturers who have only run for a small portion of the season, have produced 4,500,000 feet, making the total product 13,500,000 feet. The lumber purchased at other mills in the North West and handled by parties in Winnipeg figures up to 12,500,000 feet making the gross trade in domestic lumber for this city during the present years 26,000,000.

In reaching figures on lumber imported from Ontario and the United States, we have consulted the lumber dealers and manufacturers of the city, and their aggregate importations for the season reach 29,500,000 feet. The heaviest importer of the twelve has a gross of 10,000,000 feet, and the lightest was 750,000 feet. The amount imported by private parties we can only approximate, but we believe we are safe in fixing the figures at 3,000,000, which would bring the gross imports of the season up to the present date to 32,500,000 feet. In these figures we do not include importations made by the Canadian Pacific Railway direct, and the aggregate of these which have passed through Winnipeg must reach several million feet for building purposes, not to mention the millions of ties and other rough lumber. The total lumber trade for Winnipeg for 1882, up to the present date, is somewhat in the neighborhood of 58,500,000 feet, when we confine ourselves to purely commercial parties, and it must be remembered that the importations for the year are not completed, and when they are the figures will probably reach 65,000,000 feet.

Accepting these figures as representing the lumber business of 1882, let us look ahead and see what the prospects is for 1883. The local dealers and manufacturers have arrangements made for getting out the following quantity of logs during the present winter. For the use of the mills of the city about 16,000,000 million feet to which must be added 7,000,000 feet now on hand, with which to commence operations as early in spring as possible. Thus a total of 23,000,000 feet of logs will be at the disposal of city manufacturers, which is within 3,00,000 ft of the capacity of their mills. There are seven mills who have contracted their products for the Winnipeg market for 1883, and the gross capacity of these for the season is somewhere near 70,000,000 feet. Arrangements have been made to get out for these mills during the winter over 57,000,000 million feet, or within 13,000,000 feet of their capacity. These figures give a grand total of 78,000,000 feet of lumber manufactured in the North West, which will be available for the Winnipeg market during 1883. Should the importations from the United States and Ontario for that year show a corresponding increase over 1882, they would reach over 97,000,000 feet, which would raise the total lumber trade of Winnipeg for the coming year to 175,000,000 feet, or nearly three times as great as that of the present. There is reason to believe, however, that the imports of 1883 will not increase as rapidly as local manufactures. The milling capacity of the North West has made rapid growth during the present year, and railway communication has, and is still opening up lumber districts of the country which have hitherto been closed to the Winnipeg market. Making a liberal allowance for the gain which local monufacturers will make on imported goods there is every reason to believe that the supply of lumber available for the Winnepeg market in 1883 will not be less than 130,000,000 feet. These figures seem almost fabulous, but they are based upon carefully collected statistics, and are certainly not exaggerated. The lumber trade of a new city is one of the most reliable indexes to its prosperity, and with the foregoing figures before us we may with safety challenge any city on the Americen continent, or in fact in the universe, to show such unmistakable signs of rapid growth and development."

ABOUT 140,000,000 feet of logs were rafted the past season at the Penobscot boom. The logs rafted at the Bangor boom amount to 18,000,000 feet.

TREE PLANTING.

The following article appears in the Montreal *Witness* over the signature "Rusticus :"

"Almost all the readers of the *Witness* already know that the American Forestry Congress held its last annual session in Montreal in August, at which a number of interesting papers on forestry were read and discussed. The proceedings of the various meeting held during the session were published in sheet form, and Mr. William Little, of Montreal, Corresponding Secretary of the American Forestry Congress, will be happy to furnish copies to any one who is about to engage in forest culture. I regret that the proceedings were not published in pamphlet form so that every farmer in the Dominion, who has a taste for tree-culture, might get a copy, for it would be most interesting and useful reading matter to pass the time, during the farmers' leisure hours, pleasantly and profitably. Even such farmers as those who, like myself, have spent many years in successful warfare against Canadian forests, might now "turn over a new leaf" with advantage, and derive much greater pleasure, if not profit, from re-planting with trees a portion of the land they so often watered with the sweat of their brows while chopping, logging, burning and stumping it. There can be no doubt but large areas of the cultivated lands in the Dominion would be much more valuable at present if they were still clothed with the primeval forests which adorned them previous to the woodman's invasion, and on many rough and unfertile places, the best paying crop that could be raised would be a crop of timber, while many a dreary prospect might thereby be changed into one of rare beauty. There are many places all over the country where the roads in winter are in a semi-impassible state, at least for heavy loads, owing to the large drifts of snow which are piled upon them by every storm ; yet if small belts of trees were planted alongside the roads in the more exposed parts they might become most delightful drives in winter or summer. These "drifting places" on public roads are an annual source of serious loss to the travelling public, amounting in some cases to more than sufficient to purchase a strip of the adjacent land and plant it with sufficient trees to prevent all future driftings there. Evergeen trees, such as pine, spruce, cedar and balsam, are the best to plant for shelter to roads, orchards or gardens, and it is generally admitted that the best time for transplanting these trees is in the month of August, when most farmers are busy with harvest work. In many places they can also be successfully set out in the fall when the young trees are growing within a moderate distance of where they are wanted. The following plan has been successfully practised in transplanting evergreen trees in the fall, or any other kind of forest trees that are of too large size to be transplanted in the ordinary way. If possible, select such trees only as grow naturally upon dryer soil than the place where they are to be planted, and such only as were not shaded by other trees, so that they may have low bushy tops. Before the ground freezes up dig a small trench around them forming a circle of about four feet in diameter and leave them thus until the frost has penetrated in the soil to a depth of six or eight inches when the tree with the frozen earth around its roots can be drawn away on a stone-boat or low sled to where it is to be planted. To save extra labor a sufficiently large hole will have to be dug before the ground freezes to receive the tree with its accompanying mass of frozen earth. Two or three days spent before the ground freezes much, and a week or ten days more, after there is more or less frost and snow on the ground, would be sufficient to plant quite a strip of ornamental and useful trees of considerable size in the way above indicated. When in Great Britain and Ireland, I was surprised to see how much tree-planting is being done there now and for some years past. It seems to me that they are over-doing the thing there, for the country, which was always inclined to be moist, has lately become much more so, causing the work of harvesting the crops to become very tedious, and in many places rather precarious, and no doubt the increasing area of tree plantations for the gentry, and the unburnt heather for the breeding of moor-fowl, help materially in causing the increased humidity. The Scottish Arboricultural Society at its recent meeting in Edinburgh awarded some six or seven silver medals and a number of other prizes to the writers of successful essays on the various subjects connected with tree-culture. We ought to have Arboricultural societies and writers of prize essays on tree-culture in Canada, where they are much more needed than in Britain with its abundant supply of cheap fuel. Almost every farmer is aware how valuable second-growth white ash is in making and repairing farm machinery, yet few of them have ever planted a dozen ash trees. There are many patches of low, wet, poor land throughout the country which originally were tamarac swamps and which might again be replanted with the same kind of treers, which would become a source of wealth to their future owners. While travelling in the North-West in the spring of 1879 I observed groves of ash-leaved maples which sprang from seeds deposited by the flood of 1852, yet these young trees had already become useful in the production of maple sugar. These beautiful ash-leaved maples would readily grow in any part of Ontario or Quebec, and plenty of the seed or young shoots could be got from Manitoba.

SAVE THE HARDWOOD.

The Big Rapids, Mich., *Pioneer* is trying to stir up the citizens of that town to the desirability of more manufactories there that employ wood as a raw material. The advice is timely ; but judging from efforts in that direction that have come within our own experience, the only way to promote manufacturing at any given point is to make somebody who has capital see that money is to be made by it. Nobody is going to invest money in Big Rapids, or anywhere else, for the sake of building up the town, unless, perhaps, he has an eye to a real estate speculation. But, really, if there could be a large increase of manufactories of wood goods of great diversity in Northern Michigan, it would be of vast benefit to that portion of the state ; and for this reason : Farming population is rapidly settling on the hardwood lands, and, if local manufactories are not established so as to give these settlers a market for their maple, elm, birch, ash, etc., quite near home, they will do as all settlers in a forest country have done, slash down the trees and burn them, as the easiest way to get rid of the incumbrance. But if hardwood saw-mills and factories for working up the various kinds of hard timber are put in proportionately with the rapidity of settlement, the local value of the forest growth will become such that it will be considered folly to slaughter and waste it. Northern Michigan and Wisconsin are remakably well situated to profit by their hardwoods if their citizens did but know it. They are right in the heart of the most populous part of the country, with a timberless area, including several states to the westward, that are developing apace. The conditions of these two timbered sections are vastly different from the eastern timbered regions, where there was at the time of the settlement but little market for hardwoods. It is to be hoped the sacrifice to agricultnre will not go far before the money interest will arrest it.—*Northwestern Lumberman.*

THE LUMBER TRADE.

Lumber shipment by water being now over for the season, we have made some enquiries, among the firms and companes represented here, as to the character of the season's trade and the prospect for the coming cut. All agree that the business of the year has been renumerative. A good demand has prevailed and good prices have been obtained for lumber of all kinds. The stock to be wintered over in the Peninsula and on the Georgian Bay will probably be smaller than last year. At some particular points there may be more, but upon the whole the supply will be less.

It is too early, as yet, to discuss the probable make of logs during the season of 1882-3. The mills have this season cut just as much as they could do, and whatever favoring weather may permit to be done in the way of logging this winter, it will not be possible for steam mills to cut more lumber than they did this present year, unless, of course, their number is increased, and we hear of only one important addition, that on French River. The disposition appears to be to restrict the cut. And that this is the feeling in the United States is shown by the circumstance that one firm of operators in Michigan, who last season got out 60,000,000 feet of logs are getting out this season only 40,000,000 feet. The argument being that if excessive quantities are produced the price will be weakened, which, having regard to the increased cost of labor and logging plant, is a matter which manufacturers do not desire. At country points in Ontario the demand for lumber is steady ; at this point it is not specially brisk, for there is rather a lull in building which during the year has been decidedly active, if not overdone, in this city and suburbs. Prices continue firm, but will likly be unchanged until the spring opens, or until the winter season has so far advanced as to enable an intelligent forecast of the crop to be made.

On the south shore of the St. Lawrence, in the Province of Quebec, the past season's operations in lumber have been more encouraging than for several years, although it is true that till late in the fall there was but a light demand for wood goods for the English market. A firm of operators on the Chaudiere and St. Francis rivers thus express themselves as to the business :

"While business has been much more active, with higher prices ruling for most classes of sawn lumber, there are several facts in connection with lumbering that must not be overlooked. Wages have increased from 15 to 25 per cent. in one year ; the prices of staple provisions, connected with the lumbering industry, have been very high, and the Crown (speaking of the local Goverument of Quebec) has increased its tariff of stumpage. The manufacturer does not, therefore, immediately benefit much by the improved state of things, though with the prospects of a more favorable future the hoizon assumes a brighter hue."

The trade in hard-wood lumber is good. The American demand is active, and appearances indicate that there will be a market for all we can furnish. Some kinds are growing scarcer and prices may be expected to advance.—*Monetary Times.*

NEW BRUNSWICK TIMBER SHIPMENTS.

The St. John, N. B., *Globe* says :—"The shipments from the whole Province for 1882 will show a falling off compared with 1881. The totals for Chatham are :—1882 : 100 vessels, 58,545 tons, 48,790,679 s. f. deals, etc., 3,536,726 pieces palings, 210 tons birch, 1,224 tons of pine timber. 1881 : 142 vessels, 71,374 tons, 62,892,000 s. f. deals, etc., 2,371,440 pieces palings, 1087 tons timber. The totals for Newcastle are :—1882 : 138 vessels 77,462 tons, 63,716,000 sup. feet deals, battens and ends, 4,844,000 sup. feet, boards and scantling, 524,000 pieces of palings and laths, 583 tons birch, 728 tons pine timber. 1881 : 142 vessels, 74,776 tons, 59,772,000 sup. feet deals, etc., 6,599,000 sup. feet boards and scantling, 639,000 pieces of palings and laths, 452 tons birch, and 523 tons pine timber. The totals for Bathurst are :—1882 : 34 vessels, 20,242 tons, 17,412,806 sup. feet of deals, etc., 348,109 sup. feet boards, 55,869 sup. feet plank, 193,495 pieces lath and palings, 4,213 railway sleepers, 12 telegraph poles. 1881 : 40 vessels, 18,697 tons, 16,156,371 sup. feet of deals, boards, etc., 125,954 pieces of palings and laths, 12,000 shingles, 213,000 pieces staves, 8,312 sleepers, 161 tons of timber. The totals for Dalhousie are :—1882 : 38 vessels, 20,687 tons, 15,552,566 sup. feet sawn lumber, 14,800 pieces palings, 6½ cords lathwood, 4,011 tons timber. 1881 : 41 vessels, 21,277 tons, 15,838,127 sup feet of deals, ends and battens, 43,000 palings, 4,907 tons timber.

We have not heard the amount of shipments from Shediac and one or two other small ports. A very good idea of the business of the year can be gathered, however, from the above statements."

LUMBER SHIPMENTS FROM ST. JOHN, N.B.

The St. John *Globe* says :—The shipments from St. John for the year 1882 will probably be somewhat under the shipments made last year. For the eleven months ending 30th Nov. they are twelve million feet less than in the same period last year, the total shipments being for 1882, 187,495,815 feet ; 1881, 199,533,621 feet. We append particulars :—

Port.	*No. of vessels.*	*Tons.*	*Deals, etc. super. feet.*
Australia, 1882	2	1,894	14,840,099
" 1881	4	4,232	3,115,514
Barrow, 1882	10	8,967	7,891,134
" 1881	3	1,922	1,460,165
Bristol Channel, 1882	46	32,864	37,348,062
" 1881	38	29,712	28,182,130
Continent, 1882	26	19,656	17,950,566
" 1881	43	25,194	22,932,393
Ireland, 1882	72	39,063	36,411,042
" 1881	86	45,114	42,117,143
Liverpool, 1882	85	93,406	77,747,787
" 1881	75	82,633	71,526,872
London, 1882	5	4,009	3,085,460
" 1881	20	20,673	19,577,052
Scotland, 1882	8	7,635	6,568,712
" 1881	13	8,770	7,967,138
Wales, 1882	4	2,006	621,087
" 1881	5	2,155	1,172,144
Sundry, 1882	6	4,769	4,387,865
" 1881	3	1,467	1,462,815
Total, 1882	265	214,182	187,495,815
" 1881	290	221,872	199,533,621
A. Gibson, 1882	118	113,194	103,524,947
" 1881	86	79,288	73,602,480
W. M. McKay, 1882	35	28,432	22,282,836
" 1881	20	22,093	18,321,285
Carvill, McKean & Co., 1882	42	25,401	23,283,849
" 1881	50	30,473	28,201,696
R. A. & J. Stewart, 1882	31	22,733	19,729,572
" 1881	73	54,518	49,956,166
Guy, Bevan & Co, 1882	19	10,450	9,806,247
" 1881	34	20,532	18,193,256
S. Schofield, 1882	11	6,840	2,898,968
" 1881	9	4,683	3,352,363
Sundry, 1882	12	7,142	6,019,396
" 1881	15	8,847	6,980,087
McLachlan & Wilson, 1881	3	1,433	926,400
Total, 1882	265	214,182	187,495,815
" 1881	290	221,871	199,533,621

POLISHING WOOD WITH CHARCOAL.

All the world knows of those articles of furniture of a beautiful dead-black color, with sharp, clear-cut edges, and a smooth surface, the wood of which seems to have the density of ebony. Viewing them side by side with furniture rendered black by paint and varnish, says the *London Cabinet Market*, the difference is so sensible that the considerable margin of price separating the two kinds explans itself without need of any commentary. The operations are much longer and much more minute in this mode of a charcoal polishing, which respects every detail of the carving, while paint and varnish would clog up the holes and widen the ridges. In the first process they employ only carefully selected woods of a close and compact grain ; they cover them with a coat of camphor dissolved in water, and almost immediately afterwards with another coat, composed chiefly of sulphate of iron and nutgall. The two compositions, in blending, penetrate the wood, and give it an indelible tinge, and at the same time render it impervious to the attacks of insects.

When these two coals are sufficiently dry, they rub the surface of the wood at first with a very hard brush of couch-grass (chiendent), and then with charcoal of substances as light and friable as possible, because if a single hard grain remained in the charcoal this alone would scratch the surface, which they wish, on the contrary, to render perfectly smooth. The flat parts are rubbed with natural stick charcoal, the indented portions and crevices with charcoal powder. At once, almost simultaneously, and alternately with the charcoal, the workman also rubs his piece of furniture with flannel soaked in linseed oil and the essence of turpentine. These pouncings, repeated several times, cause the charcoal powder and the oil to penetrate into the wood, giving the article of furniture a beautiful color and perfect polish which has done of the flaws of ordinary varnish. Black wood polished with charcoal is coming day by day to be in greater demand ; it is more servicable, it does not tarnish like gilding, nor grow yellow like white wood, and in furnishing a drawing-room it agrees very happily with gilt bronzes and rich stuffs. In the dining-room, too, it is thoroughly in its place to show off the plate to the greatest advantage, and in the library it supplies a capital framework for handsomely-bound books.—*Furniture Gazette.*

GRAVENHURST.

From Our Own Correspondent.

DEC. 6.—The mills here having all shut down for the season, a few words about the past season's work and the prospects for next year may be of interest to your readers.

G. W. Taylor & Co have cut about five million feet this season, principally for the Messrs. Strickland. Most of this still remains at the mill, but has been sold to S. C. Kanady & Co., of Toronto, and will be shipped early in the spring. Mr. Taylor has sold his mill to the American Lumber Co., of which he is a stockholder, and it will be operated by them next summer under Mr. Taylor's management, who intends taking out seven million feet this winter.

The Woodstock Lumber Co. have cut at their mill here this season about 4,000,000 feet, which was purchased by McCool & Oliver, of Toronto, and a large portion of which has already been shipped by them. This company are getting out about 4,000,000 feet for next season's cut.

Chas. Mickle, who last spring purchased the mill formerly owned by Mr. Tait, has cut about 5,000,000 feet for Messrs. N. & S. Dyment, of Barrie, and is getting out 5,000,000 feet to be cut next season for the same firm. Mr. Mickle added to the capacity of his mill last summer by putting in an additional engine and pony saw and he can now cut about 60,000 per day.

Mr. De Blaquiere is building a mill and expects to cut three or four million feet next season.

Mr. Cockburn has cut about three million feet this season which was sold to J. & F. N. Tennant, of Toronto, and most of which still remains at the mill. Besides the above Mr. Cockburn cut about a million feet for other parties. He intends putting in about four million feet this winter.

Thomson & Baker, of Hamilton, purchased C. Mickle's mill last spring, and after refitting and improving it have cut about three and a half million feet, and are getting out four million feet for next season. This season's stock is sold to S. C. Kanady & Co., but very little has been shipped yet.

Messrs. Crone & Patton cut two and a half million feet which was purchased by Bryce Bros., of Toronto, and about two-thirds of which has been shipped. They intend running their mill during the winter in cutting bill stuff, and are taking out three million feet for next summer's cut.

Mr. Tasker, whose mill is about six miles from Gravenhurst, has cut about four million feet during the past season. Mr. Tasker was unfortunate in the early part of the season, being shut down for several weeks on account of his engine breaking, but after putting in a new engine he has run day and night and managed to cut all his logs.

Mr. J. H. Hnll has sold his mill at Lethbridge and part of his limits to Thos. H. Carr, of Hendrie. Mr. Carr takes immediate possession and is going to take out four million feet for next season.

On the whole the season's cut has been a large one amounting to about thirty million feet, most of which was sold, early in the season, at from eleven to thirteen dollars per M. mill run. Most of the saw mills have one or more shingle machines, and these together with several small shingle mills have manufactured about 60,000,000 shingles.

There is now about eighteen inches of snow on the level, which is being increased by fresh falls nearly every day. The lakes are nearly all frozen over and the boats laid up for the winter.

Where Some of the Hardwood Goes.

The census report states that there are in the United States 1,942 establishments for the production of agricultural implements. Of these 221 are in Illinois, 265 in New York, 220 in Pennsylvania, 155 in Ohio, 143 in Michigan. The total capital employed is $62,315,968; amount paid in wages, $15,499,114; value of timber used, $5,791,916; value of iron and steel, $18,424,052; value of other materials, $7,878,202; total $32,094,107. The largest number of persons employed during the year was 49,180. The total value of all products was $68,373,086. In 1850 the total product was $6,842,611. In 1860 it was $17,487,960. In 1870, $52,066,875. During the census year there were made 325,057 cultivators, 131,003 harrows, 280,654 dozen of hoes, 212,147 dozen of shovels, 308,732 dozen of hand rakes, 1,361,443 plows, 211,738 dozen of hay forks, 1,244,264 scythes, 43,717 scythe snaths; mowers, 72,000; seed-sowers, 20,289. In 1850, 7,220 persons were employed; in 1860, 14,814; in 1870, 25,249; and in 1880, 49,180.

MIRAMICHI WOOD EXPORT.

We find in lower province journals some interesting statistics of the exports of lumber and timber from the Miramichi region, New Brunswick. It appears that the total quantity of deals shipped from Chatham and Newcastle, in 1882 was 115,601,679 superficial feet. A feature of the business is in recent years the falling off in the exports from Chatham and the increase in those from Newcastle. The following figures show the deal shipments for the two ports in the last five years:—

	Newcastle. Sup'l ft.	*Chatham Sup'l ft.*	*Total. Sup'l ft.*
1878	20,250,000	85,725,000	106,275,000
1879	17,580,000	97,089,000	114,639,000
1880	59,550,000	95,393,000	154,893,000
1881	66,200,000	71,374,000	137,574,000
1882	63,716,000	51,885,679	115,603,679

The traffic was this season carried on by 237 vessels of 136,699 tons, as compared with 281 vessels of 145,565 tons in the previous year. All the palings, laths and square timber went to the United Kingdom. A noticeable feature of the shipments is the growth to a large extent of the export to France, as will appear from the following table. Shipments from the port of Newcastle were made to the following ports:—

Vs.	*Ports.*	*Deals, &c.*	*Bds., &c.*
100	U. Kingdom	46,869,000	3,451,000
25	France	12,454,000	235,000
4	Spain	1,563,000	182,000
2	Italy	790,000	40,000
4	Africa	1,375,000	99,000
1	Australia	650,000	
1	B. W. Indies	15,000	460,600
2	U. States		377,000
138		63,716,000	4,844,000

The Chatham *Advance* supplies the following figures for both places—Chatham and Newcastle:—

Shippers.	*Vsls.*	*S. F. Deals &c.*
R. A. & J. Stewart	70	34,217,000
S. B. Snowball	52	23,558,263
Geo. McLeod	39	21,028,000
Guy, Bevan & Co	31	17,505,416
D. & J. Ritchie & Co	29	7,994,000
A. Morrison	17	7,727,000
Geo. Burchill	7	3,572,000
	227	115,601,670

The palings and timber shipped were as follows:—

	Palings, pcs.	*Timber Birch.*	*Tons Pine.*
R. B. & J. Stewart	440,000	449	628
J. B. Snowball	878,712	148	1,107
Guy, Bevan & Co	2,657,954		25
A. Morrison		62	91
D. & J. Ritchie & Co	69,000	124	....
Geo. Burchill	9,000	....	....
	4,054,726	783	1,852

Besides the above, says the St. John *Telegraph*: There were miscellaneous items, many of which are now in our wood shipments for the first time, such as 103,315 squares for spools, 106,156 broom handles, 1,163 cubic feet brush backs, 2,471 feet cloth boards, 570,000 box shooks, 727 slate frames, 19,000 slate laths, 40,980 lath, 32 spars, etc. The cargo of the bark "Winona," of 767 tons is to be added. This is estimated at 650,000 deals.

Comparing the Miramichi shipments of the last two seasons we find them as follows:—

	Ves.	*S. F. Deals etc.*	*Palings pcs.*	*Tons. Timber.*
1881	281	128,290,875	3,148,853	2,043
1882	237	115,601,679	4,054,726	2,635

The port of Dalhousie, on the Baie des Chaleurs, shipped in 1882 no less than 15,552,000 superficial feet of sawn lumber, and 4,011 tons timber, in 38 vessels of 20,687 tons. The principal shippers from that point were Geo. Moffatt & Co., R. A. & J. Stewart, and John McNair.

TWENTY-FIVE hundred acres of timbered land on Sutton Mountain have been bought by a company from the States. They are putting in steam mills, and calculate to employ a large number of men.

A LARGE LOG CROP.

The St. Paul (Minn.) *Pioneer Press* makes the following comments on the logging preparations through its section:—"The lumbermen in the northwest are making extensive preparations for work in the woods this winter. Every day there are numbers of lumbermen in St. Paul, having supplies, teams and logging outfits. Without exception those who have been interviewed state that more logs will be put in this winter in the pineries of Wisconsin and Minnesota than have ever been cut in the northwest during any one season. A good deals depends, of course, upon favourable weather—hard freezing followed by a fair amount of snow but now-a-days the lumbermen do not hang up their axes and cross-cuts merely because there are not good snow roads in the woods, for experience has proved that tramways are about as economical as any roads that can be maintained. So, whether there is plenty of snow or not, a large log crop is certain. The lumbermen from the Black, Chippewa, and St. Croix rivers, in Wisconsin, who purchase supplies in St. Paul, say that every dollar which can be secured for logging will be used this winter. The same is claimed by lumbermen who operate in the Minnesota pineries. The general opinion is that, notwithstanding the certainty of a large crop, prices next season will continue high, a vero great demand from the northwest being expected.

River Pirates.

Many of the mill men doing business on the Ohio river see the necessity of uniform laws, in the states bordering on the river, bearing on timber stealing. Timber thieves are abundant and the laws in many cases are inadequate for their punishment. If a man enter the barn of a lumber manufacturer and steal his horse, it is a common understanding that he ought to be punished, and laws are framed to that end, but the same man can pick up logs belonging to other parties, and, if detected, goes really scot-free. This is all wrong, and known to be wrong by the law-makers of the different states as well as by the mill men themselves. It was proposed by a manufacturer, who recently visited the *Lumberman*, that a convention of the river mill men be called and action taken to induce the passage of the necessary laws in the legislatures of the several states, and that the laws be uniform. Everything that these river pirates can lay their hands on they spirit away. One gentleman lost $2,000 worth of chains and ropes in rafting, which is only a single instance of several that could be named. If the mill men would move in the matter the results might well repay them.—*Northwestern Lumberman.*

Old Trees.

The oldest tree in the world, so far as any one knows, is the Bo tree of the sacred city of Amarapoora in Burmah. It was planted 288 B. C., and is therefore now 2,170 years old. Sir James Emerson Tennent gives reasons for believing that the tree is really of this wonderful age, and refers to historic documents in which it is mentioned at different dates, as 182 A. D., 223 A. D., and so on to the present day. "To it," says Sir James, "kings have even dedicated their dominions in testimony of a belief that it is a branch of the identical fig-tree under which Buddha reclined at Urumelaya when he underwent his apotheosis." Its leaves are carried away as streamers by pilgrims, but it is too sacred to touch with a knife, and therefore they are only gathered when they fall. The King oak in Windsor forest, England, is 1,000 years old

Port Hope Shipments.

The following is furnished us by Mr. Cochrane, harbor master, as the amount of lumber, shingles, laths, cedar posts, railway ties, and telegraph poles shipped from this port during the present season:—E. S. Vinden—14,399,800 feet of lumber, 25,664½ M. shingles; 989½ M. laths; 24 cords of cedar posts; 37,725 railway ties. Alonzo W. Spooner—25,146,266 feet of lumber; 1,248½ M. laths. Irwin & Boyd—14,058,451 feet of lumber. R. C. Smith—4,297,595 feet of lumber. J. Leverich—2,341,370 feet of lumber; 6,380½ M. shingles; 697½ M. laths; 406 cords of cedar posts; 1,218 telegraph poles.

WOODEN JOKES.

The following is published in the *Queens' College Journal*:—

DEAR SIRS,—A certain student received in an envelope, which contained nothing else, the following paragraph which had been cut from a newspaper. And out of sheer madness and vexation of spirit wrote the following reply:

Because John Timber married Annie Pine, recently, the Des Moines *Registrar* calls it a "regular wooden wedding to begin on." We suppose they will board while the honey-moon beams on them, for after that they will decide weather boarding or housekeeping is preferable.—*Burlington Hawkeye.* We hate to lumber up this column, but must really ask, will the first boy be a chip of the old block?—*New York News.* We are rejoiced to hear that they still adore each other. She bangs but does nothing that wood-shed reproach upon the household.—*Yawcob Strauss.* We hope their children will be spruce and seldom require a shingle.—*Hubbard's Printers' Advertiser.* We pre fir knot to say anything, but we would like to know if we maplease inquire whether people can beecheerful under such circumstances?—*Oil City Derrick.* Yew may take the elm, as this has gone far enough.—*Erratic Enrique.* Oak come, now, give the boys a chance and we willow you our thanks.—*Yawcob Strauss.* We concedar that one rod of this stuff would make about five and a-half lumber yards.—*Printers' Miscellany.* We opine the boys mahugany of their daughters.—*Welland Telegraph.* If ever the girls get married, white wood be the most appropriate dress and box wood be the nicest color for trimming, and pulp making the best business to engage in.

The person who *wood* send such a *tree*mendous list of *wood* be puns through the *post* to a student who is a *boarder* ought to be *ash*amed of himself, and as for the individual who *framed* the first, may the sun in the firmament never*after* cast its *beams* upon him. May the *elm*ents combine against him. May his *palmy* days *knot* return. When dogs *bark* at him, may the street boy call out *sycamore!* May he *cedar*kly and *pine* away for his of*fence*. I would feel re*joist* if some one *wood bined* him and *pitch* him into a hole, and *wood pile* earth upon him. Or I stand *treet* to any one who *woodland* him in *limbo*, where he might *rail* and *balsam*, but I would say, let him *stick*, as it *wood beech*-aritable to allow him *thyme forres*timating his atrocity fully. Finally *maple*-station cease, and let him be *berry*ed with the b-*roots*, where a *dog-wood knot* be seen.

Yours truly,

JEU DE MOTS.

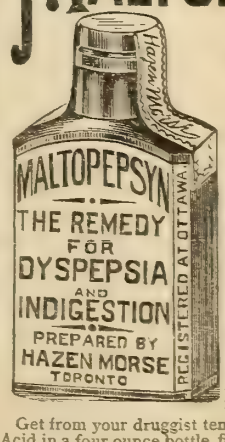
Artificial Lumber.

Another new process of manufacturing artificial lumber is announced, this time discovered by a German inventor. Common cellulose, sawdust, starch, and wheat flour are the constituents. The cellulose is reduced to a pulp in water, the starch and flour added, and the whole boiled till it resembles a glue. An equal quantity of sawdust is then added, and the whole shaped in iron moulds under enormous pressure. The resulting product is said to resemble lumber, to be easily worked with saw or file, colored, polished or covered with veneer, and to be almost unaffected by the lapse of time, except to become harder.—*Buffalo Lumber World.*

MALTOPEPSYN

AN

Artificial Gastric Juice.



A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the rules of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

THE CASE OF McLAREN V. CALDWELL.

OTTAWA, Nov. 28.—When the judges took their seats in the Supreme Court this morning the Chief Justice, Sir William Ritchie, announced that they would deliver judgemnt in the case of McLaren, appellant (plaintiff), against Caldwell, respondent (defendant), before hearing arguments on the cases remaining on the docket.

LEGAL HISTORY OF THE CASE.

Vice-Chancellor Proudfoot had granted an injunction to restrain the defendant from interfering with or using the improvements placed by the plaintiff in certain streams of which he claimed to be seized in fee simple, and the user of which, the defendant contended, was a common right under the common and statute law of Ontario. The Court of Appeal of the Province by a majority reversed this decision, Chief Justice Spragge and Justices Patterson and Morrison concurring in over-ruling the court below, and Mr. Justice Burton dissenting from their view. The present appeal was from tee judgment of the Ontario Court of Appeal, and was argued at a former term.

THE CHIEF JUSTICE'S RULING.

The CHIEF JUSTICE said the plaintiff contended that the stream where it passed through his property was by nature non-navigable and non-floatable at all seasons of the year, but that he had by artificial means placed upon his own property certain improvements, which enabled him to convey logs and other timber down the stream. The main question at issue was, Had the appellant the legal right to prevent the respondent, as he sought to do, from driving his logs through these improvements on the streams which were the appellant's own property; or were those particular streams merely a part of the public highway, and therefore open to the respondent in common with the appellant and the public generally? It could not be disputed that if the portions of the streams in which the improvements were made were incapable of floating lumber, and if the fee simple of the streams was in the plaintiff, the public had no right at common law, and the plaintiff had the sole right to deal with the bed and soil of the stream, and to place such improvements thereon as he might choose. While it seemed to be admitted that the public had no right to make improvements on the plaintiff's property, it was claimed that in Ontario, where streams of the character mentioned were rendered capable of being navigated by such improvements made by the owner of the soil whereby lumber could be floated, the public had an absolute common right to use such improvements, and to deal with the streams as if they had been naturally floatable —that is, floatable without the aid of artificial improvements; and this right, it was also claimed was conferred on the public by virtue of the Act 12 Vic., cap. 87, sec. 5, which was repealed by the Consolidated Statutes of Canada in 1859, but practically re-enacted by cap. 48, Consolidated Statutes of Upper Canada, secs. 15 and 16. There could, he apprehended, be no doubt that statutes which encroached on the rights of the subject, whether as regarded person or property, should receive a strict construction; and if a reasonable doubt remained which could not be satisfactorily solved, the subject was entitled to the benefit of the doubt. In other words, he should not be injured in person or property unless the intentions of the Legislature to interfere with the one or take away the other was clearly and unequivocally indicated. If the appellant's contentions were correct, they were met at the outset with the incongruity of the Legislature enacting that it should be lawful to float saw logs, &c., down streams on which, from the nature of the streams themselves, it was impossible that saw logs, &c., could be floated down. In other words, it seemed most unreasonable to suppose that the Legislature intended to legislate that it should be lawful to do what, in the very nature of things, could not be done. Was it not more reasonable to assume that the Legislature was dealing with a subject capable of being used in the manner in which it was declared that it should be lawful to use the same, and that its language had reference to all streams on or through which saw logs or other timber could be floated, either at all times or during the spring, summer, or autumn freshets? In his opinion the object of the Legislature was, in the interest of the lumber business, not to interfere with or take away private rights, but to settle by statutory declaration any doubts which might exist as to streams incapable of being navigated by boats, &c., but capable of floating saw logs and lumber at certain seasons of the year. Having established this right, the Act went on to prevent the obstruction of such streams, subject, nevertheless, to the restrictions imposed in respect to erections for milling purposes on such streams. It was not, however, intended to interfere with private property and private rights in streams which were not by nature floatable at any season of the year. If the Legislature contemplated what was now contended, or intended the enactment to apply to streams non-floatable at all seasons, as there was no pretence for saying that the Legislature had conferred any right on the parties to enter upon private property and make the non-floated floatable, and as they could not be made practically floatable by the operation of law, what was the precise legal right conferred on the public by the statute? Was it not obvious that the only effect of the enactment could be in such case to confer upon the public the right to use private property and the improvements thereon without making any compensation therefor? Was it then possible to infer any such intention from this section? Had it been present to the mind of the Legislature it should have been, and, he thought, would have been, clearly and unequivocally expressed. It was not possible to attribute to the Legislature an intention unreasonable and unjust, unless the language was so unambiguous as to admit no doubt of the construction. He could not appreciate the force of the parallel drawn by Mr. Justice Patterson in regard to public highways, which appeared to him entirely to beg fhe question. Dealing with the contention for the right to use the improvements of a proprietor by which he had made the stream floatable, the Chief Justice said the proprietor of a non-floatable stream who made it floatable for his own use did no more than if he made a canal through his property. He did not interfere with his neighbour; he took nothing from the public, who could neither use the stream as it was nor improve it, except by the permission of the proprietor, and to whom, having no right or property therein, the improvements of the proprietor did no wrong. It had been urged that to allow an individual to shut up a stream 100 miles long because he might own small portions of the stream not floatable because of its nature, would be most unreasonable. But it seemed to him to be forgotten that it was not the individual who shut up the stream; it was closed by natural impediments which prevented such portions being used for floatable purposes, and as it was admitted that the public had no right to enter upon such portions, and make improvements whereby the stream might in those parts be made navigable or floatable, by reason of its being private property, the stream was as effectually shut up by the refusal to permit an entry and improvements to be made as if the proprietor had not made the improvements, and had prohibited the use thereof by the public. If the use of the non-floatable portions was as necessary for carrying on lumbering operations as had been urged, the obvious means to secure the right to use the privileged improvements would seem to be to obtain, by payment of an adequate consideration, the proprietor's permission; or if the streams were unimproved, to secure from the proprietor the privilege of making such necessary improvements; or, failing the ability to accomplish this, if the development of the public domain, the exigencies of the public, or the business of the country was of such paramount importance in comparison with individual loss or inconvenience as to require that private rights should give way to the public interest, the remedy should be sought at the hands of the Legislature, through the instrumentality of expropriation, with suitable and full compensation under and by virtue of the right of eminent domain. There was nothing to justify the conclusion that the Legislature intended in this provision to exercise its right of eminent domain, and expropriate the property of owners of streams not by nature navigable or floatable, or any property or improvements the owner might make or place thereon. His Lordship cited the case of Horack v. Worship (Best & Smith's reports), and he pointed out that he was strengthened in the conclusion to which he had arrived by the weight of judicial opinion in Ontario as expressed in the Boyle case by Chief Justice Draper, Chief Justice Richards, Justice A. Wilson and J. Wilson; in Whelan v. McLachlin, and McLellan v. Baker, by Chief Justice Hagarty and Justices Gwynne and Galt; and in this case by Vice-Chancellor Proudfoot and Mr. Justice Burton, while Chief Justice Spragge and Justices Patterson and Morrison had overruled the previous decisions on the point. There were thus three Chief Justices and five Justices in support of the conclusion at which he had arrived, and one Chief Justice and two Justices taking a different view. In 1877, in the Revised Statutes, the Legislature, after all the decisions to which he had referred in previous cases had been given, re-enacted chapter 48 of the Consolidated Statutes of Upper Canada, passed in 1859, in almost the same words, as follows — All persons may during the spring, summer, and autumn freshets float saw logs and other timber and rafts and crafts down all streams; and no person shall by felling trees or placing any obstruction in or across any such stream, prevent the passage thereof. In case there is a convenient apron, slide, gate, lock, or opening in any such dam or other structure made for the passage of saw logs and other timbers, rafts, and crafts authorized to be floated down such stream as aforesaid, no person using any such stream in the manner and for the purpose aforesaid shall alter, injure, or destroy any such dam or other useful erection in or upon the bed or across the stream, or do any unnecessary damage thereto or on the banks thereof." His Lordship continued that considering then that up to the time of the passage of this Act all the decisions of all the judges, with no dissenting voice, from 1863 to 1876 placed upon this enactment, the construction now contended for by the plaintiff, if such construction was so clearly contrary to the intention of the Legislature, so opposed to the development of the Crown domain, so antagonistic to the interests of the public, and so disastrous to the lumber business of the country as had been so strongly urged before this court, could it be supposed that the Legislature, in revising the statutes after such a series of decisions, and only one year after the latest decision, would not have corrected the judiciary either by a declaration or by new legislation, and have indicated in unmistakable language that private improvements of non-floatable streams should be subject to public use, and more particularly so if such user was to be without compensation? As they had not done so, did not this case come with great force within the canon of construction that where a clause of any Act of Parliament which had received a judicial interpretation, on account of competent jurisdiction, was re-enacted in the same terms, the Legislature was to be deemed to have adopted that interpretation? In this case he thought that there was unusual cause for treating a re-enactment of this nature as a legislative approval of the judicial interpretation, and for holding that such interpretation should not be shaken, when it was considered that the Legislature, from such judicial proceedings, must have known that the property was purchased and held and an investment made based on the claim that by such judicial decisions private rights and property had been established and secured. As was said by Lord Ellenborough a long time ago, it was no new thing for a court to hold itself percluded in matters respecting real property by former decisions, upon questions in respect of which if it were integral, they would probably have come to a different conclusion; and if an adherence to such a determination was likely to be attended by inconvenience it was a matter to be remedied by the Legislature, which was able to prevent michief in future and to obviate all inconvenient consequences which were likely to result from it as to purchases already made. For all these reasons he was of the opinion that the contention of the plaintiff should be sustained, and that the decision of the Court of Appeal of Ontario was not correct, and the judgement of Vice-Chancellor Proudfoot should be affirmed. His Lordship further held that the Vice-Chancellor was right in rejecting evidence to prove that all steams in Upper Canada were non-floatably at the time of the passing of the various Acts. He could find nothing to justify him in saying that the Vice-Chancellor arrived at a wrong conclusion from the evidence, and declared in reference to the contention that the Attorney-General should have been made a party to the suit that if this was a private property the Attorney-General had no more to no with the question than any other member of the community, and there was no more reason why he should be made a party than in any other controversy between private individuals as to the rights of private property.

Mr. Justice Strong said it would be hopeless to attempt from the evidence to impugn the finding that the stream in question was not floatable in the state of nature. The appellant's title to the lands, including the beds, had not been seriously disputed, and had been established by the production of his title deeds. The question was therefore purely one of law, whether under common law or under the Revised Statues of Ontario, chapter 115, sections 1 and 2, the respondent had the right of passage which he claimed for his logs and timber through the artificial waterways constructed by the plaintiff on the streams in question. As to the right under common law, he reiterated the decision of Chief Justice Macaulay in the Queen v. Myers, 3 U. C. C. P., 305; Mr. Angell on "The Law of Highways," and Chancellor Kent in his commentory, but declared that in a case like the present, where the owner of the bed and banks of a private stream, which in the whole or part of its course was insufficient to afford a passage even for logs or timber, had by artificial means made it navigable, it did not, for that reason, become liable to a servitude of passage for the benefit of the public, as in the case of a stream naturally adapted to such a use. The principle upon which the common law had made streams originally navigable liable to such use was that a burthen was imposed for the public benefit when the property was originally vested in their own and passed to other owners, while if this were applied to streams which were made navigable by artificial means the result would be to appropriate property to public use without compensation, and this would be an encroachment on private rights which the laws not only never sanctioned, but sought in every way to avoid, in the case of positive written laws, by adopting strict rules of construction. He cited several American cases in support of his view as to the right under chapter 115 of the Revised Statutes. His Lordship was of opinion that all streams did not embrace artificially constructed private streams such as those in question. To consider otherwise would be in direct violation of the sound and well-recognized canon of construction which had been acted upon, from Barrington's case down to the Western Counties Railway Company against the Windsor and Annapolis Railway Company, namely, that statutes were to be so constructed as to avoid any infringement of private rights unless by express words or necessary implication such construction was unavoidable. To comply with the first condition, streams in whole or in part artificially constructed would have to be expressly mentioned, and they would not necessarily be implied unless there were no other streams to which the Act could apply. He cited the case of Horrock v. Wiship, which he said fully warranted the court in adopting a construction so restrictive as to prevent the statute operating in degradation of private rights of property. He could not hold that the Legislature intended to authorize a gross violation of the rights of private property without giving compensation to its owners, and he was therefore of the opinion that the appeal must be allowed and the order of the Court of Appeal be reversed, thus restoring the original decree of the Court of Chancery, with costs to the appellant in all the courts.

Mr. Justice Fournier, Mr. Justice Henry, and Mr. Justice Taschereau concurred.

Mr. Justice GWYNNE said it appeared to him impossible to arrive at any other conclusion than that which the learnd Vice-Chancellor had come to. Without the improvements made by

the appellant in the streams referred to, none of them was capable of being used, even in times of freshets or high water, although one of them, the Mississippi, below the place where the improvements were made, came within the character of a navigable stream. It was either admitted or sufficiently established in the evidence that the appellant was seized in fee simple of the lands on each side of the streams adjoining the improvements, and though there was an attempt to affect the absolute perfection of the title, it was not disputed that he was in possession *qua* owner in fee at the time of the wrongdoing. It is contended that though the appellant was seized in fee of the lands where the improvements were made, still the beds of the streams were vested in the Crown for the public use, and in virtue of such seisin in the Crown the respondents were entitled to float their logs by means of the improvements referred to. There was, however, no reservation of the beds, which the grant of the lands abutting on the streams carried with it, and he therefore held that the appellant was seized in fee of the beds of the streams. He cited the judgment of Sir James Macaulay in the Queen v. Meyers, which was given four years after the passage of the 12th Vic., cap. 87, on which the respondents relied, but with a full knowledge of the intention of that, it never entered into the head of that learned Chief Justice that private streams which had been made navigable only by a large expenditure of private capital on private property were to be included in its provisions. The Court of Common Pleas of Ontario had expressed a similar view on two occasions, but the Court of Appeal for Ontario had in this case held that all these decisions were wrong. Apart from the imputation of arbitary interference by the Legislature with private property without the compensation which such a decision involved, a careful investigation of the language of the statutes and the decisions of the courts led clearly to the conclusion that the decision of the Court of Appeal could not be upheld. There has not been a judicial decision as to the rights of the public at common law in streams down which lumber might be floated before the passage of the 12th Vic., cap. 87, and the object of that enactment was to estabiish the right to float lumber down such streams, a right which four years afterwards the Court of Common Pleas, in the Crown against Meyer, declared that the common law, applied to the peculiar circumstances of Upper Canada, was sufficiently elastic to secure *jure naturali*, and the depending on the effect of user. It was impossible that the Legislature could have designed to declare that it should be lawful for all persons to float logs down streams which had not sufficient capacity to allow logs to be floated down, even during freshets, or to prevent persons erecting improvements on streams which had not such capacity. Neither could it be believed that they intended to provide that if a person was to make a stream not having that capacity capable of floating logs, &c., the stream should at once become open to the public, without the consent, molestation, or interruption of the person who had expended his own property, and without any compensation whatever to the owner of the property who had constructed the works on his property which gave the stream its capacity by artificial means. It was impossible to apply such an interpretation without an utter disregard of the plainest principles of justice. Other Acts showed that the Legislature could have had no such intention, as they, with scrupulous regard for private rights, provided that no man should be interfered with in the enjoyment of his private rights without his consent, and without full compensation. It was, therefore, impossible to hold that all persons were entitled to use as public private works erected on private property without the consent, and in fact against the will, of the person who had constructed them. His Lordship was, therefore, of opinion that the plain, natural, and reasonable construction of the 12th Vic., cap. 87, was that the object was simply to prevent any person, even the owner in fee, of the bed of the stream, by any obstruction erected across the stream, from interfering with free passage down the stream of such logs or timber as, but for the obstruction, could be floated down, although they could be floated during freshets. The judgment of the Court of Appeal must be reversed, the appeal allowed to the judgment of the Court of Chancery restored, with costs to the appellant in this court and the courts below.

Jugment was entered accordingly.

Mr. J. BETHUNE, Q. C., for the respondent, applied for leave to appeal to the foot of the Throne.

The CHIEF JUSTICE said he could only give the same answer he gave to all such applications. The court could neither grant the leave nor refuse it.—*Mail*

"MAY IT PLEASE YOUR HONOUR."

(Evansville, Ind., Journal.)

"There are three points in this case, may it please your honor" said the counsel. "In the first place we contend, that the kettle in dispute was cracked when we borrowed it; secondly, that it was whole when we returned it; and thirdly, that we never had it." Such logic might appear ridiculous but for the fact, that the remarkable evidence produced in some of the great murder and "scandal" cases which have had legal ventilation in this country during the past few years, was of no less an edifying and conflicting nature. In strongest contrast to this many sided kind of testimony, are the following emphatic and uniform statements made by well known business men of Evansville, to a reporter of the *Journal* who was commissioned to get their opinions and experence relative to the article in question, and of which such astonishing reports are appearing in many of our leading exchanges. Mr. Charles Laval, proprietor of the Prescription Drug Store, Cor. Locust and Third Streets, upon learning the nature of the writers visit, said that his sales of the St. Jacobs Oil were large and always increasing. That very many people to whom he had sold the article, called and reported it to be the most excellent remedy for rheumatism, neuralgia, &c. "We can safely say that St. Jacobs Oil has effected within the past year, more cures than any other liniment we have ever sold," were the words of Messrs. Isaacs & Failing, 613 Main Street. Mr. Frank S. Mueller, whose store is at 925 W. Franklin Street, cited the case of Mr. Henry Rhenick, who for four years suffered with Rheumatism, which was cured by the use of two bottles of St. Jacobs Oil. At the Canal Drug Store, Mr. G. A. De Souchet, was pleased to say that all united in claiming it the best liniment they ever used. There was a growing demand, and a number of his customers had called to testify to specific cures. Learning that a member of the well known firm of Kerr & Morgan, proprietors of the boarding stables 286 Locust Street, had had experience with the article, a visit revealed the fact that a few applications of the St. Jacobs Oil cured him of an attack of Rheumatism, causing him to feel like a new man. Mr. George Knortt, with the Ingle Ice Co., experienced the same happy results from a bottle of the Oil in a case of Rheumatism, which had troubled him for six weeks. Mr. W. Weber, Druggist at 630 Main Street said, that the St. Jacobs Oil could be recommended with a clear conscience for the prompt allevation and cure of all the various painful ailments which could be reached by an external remedy. Similar testimony was received at all the different places visited, among which were the Farmer's Drug Store of F. A. Illing, 515 Fulton Avenue; and L. W. Deusner & Co., Cor. Second and Seymour Streets. It should be stated, that our fellow citizen Mr. J. Bertelsen, Upper Second Street, from his personal experience, recommends the St. Jacobs Oil as the best article of its kind.

Such indorsements as these, carry no double meaning; there is but one inference; and as has been well said by the *Chicago Times* after interviewing some of its leading citizens, "they should be enough to satisfy the most skeptical, of the wonderful, almost miraculous properties contained in these little bottles."

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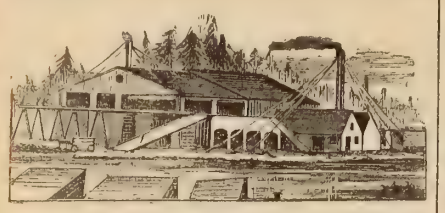

THE CANADA

LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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PETERBOROUGH, Ont. DEC. 15, 1882.

AT the shingle mill of Messrs. Gunter & Co., at Marble Cove, N. B., the daily production is about 12,000, which will shortly be increased.

LUMBERING is active in Westmoreland County, New Brunswick, Mr. Abner Jones' surveyor, reports 750,000 feet already in the yards.

A CINCINNATI furniture maker recently received a walnut burl which cut 15,991 feet of veneers, and another firm in the same city cut 13,000 feet out of a French burl.

Messrs. McLachlan Bros.' mills at Arnprior have cut 60 million feet of lumber during the past season. This is the largest cut ever turned out in that section. Fifteen hundred men are at work in the lumber shanties on the Kippewa.

THE *Lake Superior News* says:—The Duluth Lumber Co., composed of some of the most energetic and solid lumbermen in the North-west, have broken ground for an immense $18,000 dry kiln which is to be erected as fast as men can do the work. The kiln will have a capacity for drying 50,000 feet of lumber per day.

THE lumber mills of Mr. Peter McLaren at Carleton Place are being extended. An additional 30 feet in length is to be built next the larger mill, and a steel shaft from England is to take the place of the present one. The changes made last winter did not give satisfaction, and these will be removed and other and more satisfactory ones made.

THE *Lumberman's Gazette* of Dec. 6, says:—Three hundred and fifty-six thousand nine hundred and twenty-one logs had been sawed up to last Saturday night by the two mills of the Kirby Carpenter Company in Wisconsin. This firm's new mill has averaged 225,000 feet of lumber daily, and the old mill 135,000 feet since starting up in the spring. On Wednesday, the day after the election, the old mill, under the superintendency of Roland Harris, an old-time Democrat, made her biggest cut for the year—96,000 feet of lumber. The effect of the late Democratic victory, perhaps.

THE lumber sawing season just closed was perhaps the most unfavorable ever experienced on the St. Croix river. The low head of water in the river during the entire fall was unprecedented. Several manufacturers were left with important orders unfilled. The amount of lumber carried over this winter on the wharves may not exceed one-half the average of late years.—Calais (Me.) *Times.*

AMONG the local industries of Bath, Me., is the manufacture of ship's-mast hoops, out of native oak. Milton, McIntyre & Son have for several years made these articles, that are used by the shipbuilders of Waldsborough. A three-master uses 66 mast hoops, and about thirty hanks, the last being the nautical name for the rings confining the sails to the stays. The hoops sell for one cent and a half per diametric inch.

THE London *Timber Trades Journal* says:—Next years' importation of American pine joinery work will be watched with no small amount of interest by those engaged in the business. Several innovations are promised us, planed boards and scantlings being among them. It is said that some of the Swedish mills purpose responding, and there can be no doubt that next year will usher in a vigorous competition in the joinery department. Already the Swedish mills have been experimenting in new forms of manufacture.

THE London *Timber Trades Journal* says:—The shipments of pine deals of well-known brands, such as "Gilmour's," "Eddy's," "Booth's," &c., have come forward as usual good in quality this year. Notably has this been the case with the 3rd quality. Some other shipments have, however, been most unfairly bracked, and we have seen parcels of 3rds little, if any, better than the 4ths should be. The opinion is taking firm root amongst consumers of pine deals that the difference in the quality of 3rds and 2nds is not marked to the extent that the serious difference in cost would suggest.

THE *Lumberman's Gazette* of Bay City, Michigan, says:—The lumber manufacturing and shipping season has practically closed for the season of 1882. All, or nearly all of the mills have shut down, and the shipping season is also over. Among the mills that have shut down during the week are those of John G. Own, Murphy & Dorr, Whitney & Batchelor, and the Saginaw Lumber & Salt Co. Murphy & Dorr cut between 19,000,000 and 20,000,000 feet; the Whitney & Batchelor mill about 31,000,000 feet; the Crow Island about 20,000,000 feet, and John G. Owen's about 15,000,000 feet. A commission dealer informs us that he has purchased within the past 15 days about 15,000,000 feet of lumber to hold over, at $7.25@8.50; $15 @17, and $36@38.

THE Moncton *Times* says:—Peters Bros. next spring intend erecting a large three story woodenware factory corner Queen and Wesley streets, just above their present factory. They have purchased the lot of land at the corner for that purpose. The frame has been ordered. The old building, or at least part of it, will be used as a storeroom for lumber, etc. The improved building has been rendered necessary by a constantly increasing business. The firm are now receiving large orders from all points north, and as far as Nova Scotia. They are putting together a large number of sashes for Campbellton. There will be no cessation in building operations by this firm this winter, except in the most severe weather. Several buildings are now under way and figures have been given for several others.

PRAIRIE TREE PLANTING.

The importance of tree planting cannot be too strongly urged upon the agriculturists of this country, where the supply of timber is already scarce and rapidly growing beautifully less. Doubtless the length of time that must necessarily be taken to produce profitble results deters many from entering upon this branch of industry, but in localities where timber is especially scarce the next couple of years will prove that this is a serious mistake. There are several varieties of trees that grow very rapidly in this country and wherever they have been planted and received ordinary care the results have been very gratifying. In the Little Saskatchewan district several farmers have commenced planting on a small scale with good prospects of success, and one gentleman in the county of Minnedosa has a plantation of young soft maples of about three years' growth which have attained a remarkable size for such a short period. The prairie farmer can make no better investment than to purchase a liberal number of young trees and plant them on his property. They need very little care and after a couple of years' growth begin to afford shelter from the sweeping winds, besides improving the appearance of the homestead. Of course it would be some years before they would return any direct profit, but the advantages already pointed out would more than repay the cost of investment. The agricultural societies would be rendering a great service by taking steps to urge this important subject upon the consideration of the farmers.—*Winnipeg Times.*

MEASURING LUMBER.

To the Editor of the Canada Lumberman.

GENTLEMEN,—Will you be kind enough to give me the rule of the trade in selling 1, 1⅛, 1¼, 1½ and 2 in. lumber of all widths. Do we take the surface and add the fraction, or add the fraction on each board.

Your immediate reply will oblige,

Yours truly,

Clifford, Dec. 1, 1882. F. S. DOBSON.

[There is no 1⅛ inch lumber reckoned as such, unless cut expressly. As to the other dimensions the fractions would be added to the superficies, but in practice this is done by means of board rules which give the quantities in each piece.—ED. CANADA LUMBERMAN.]

CULLING LUMBER.

To the Editor of the Canada Lumberman.

DEAR SIRS,—It would interest some of your many subscribers if you would kindly, either through yourself or some competent correspondent, give us the correct definition of what constitutes a mill cull, as there is a vague impression amongst many mill men that only defects, such as wormy timber, rotten or shaky timber are about the only causes for which lumber should be mill culled. To put the matter plainer, if a piece of lumber is rendered useless for the purpose for which it is intended by bad sawing, is it a mill cull?

By answering this you will oblige many readers.

Truly Yours,

Toronto, Dec. 9, 1882. LUMBERMAN.

[Such a defect in sawing as is mentioned might cause its rejection as a mill cull or its being placed in a low grade. Some of the other defects alluded to, such as worm holes, would not necessarily place it in mill culls unless very bad. No absolute definition of mill culls is generally recognized, and cullers' judgments may differ. We would be glad if any of our subscribers would give their experience on this subject.—ED. CANADA LUMBERMAN.]

LUMBERING STREAMS.

The Buffalo *Lumber World* says:—Over in Canada the Supreme Court has just rendered a decision in a case which is of particular interest to lumbermen. It seems that the plaintiff, for the purpose of floating logs and timber into a river near Ottawa, made improvements in certain tributary streams which passed through his property, and obtained from the Court of Chancery an injunction restraining defendant from making use of these streams. The case was appealed to the Court of Appeal of Ontario, which reversed the decision of the Court of Chancery on the ground that streams are a part of the public highway, open to the defendant as well as the plaintiff. Now the Supreme Court unanimously confirms the decision granting the injunction, on the ground that the streams in a state of nature were not navigable or floatable, and having been rendered so by the plaintiff by artificial means, the defendant has no right to their use. That is, the courts have decided that where a stream passing through private property is navigable in its natural condition, it is open to the public use; but when it is only made navigable by improvements conducted at the expense of the owners of the property, they have the right to its exclusive use. This is good sense as well as good law, and no doubt the courts of the United States would adhere to a similar rule.

MICHIGAN OPERATIONS.

The *Lumberman's Gazette* says:—In conversation with a leading lumberman last week a *Gazette* representative learned that extensive preparations have been made by mill men this fall for lumbering by rail from their camps in the woods north. Owing to the shortage in the Tittabawassee and other booms it will be impossible, he said, to supply the hundred or so mills of the Saginaw Valley at the commencement of the season, and consequently the M. C. railroad authorities have been actively engaged in putting side tracks into the camps in the northern woods and making slips into the booms of mills in West Bay City, in order to supply by rail the deficiency left by the boom shortage. Tracks have been laid into nearly all of Mosher & Fisher's camps contiguous to the Mackinaw division of the M. C. railroad. Sage & Co., in the vicinity of Beaver lake are doing the same, and many of the east side mills which manufacture at all extensively are following suit. During the last season the operations in logs and lumber on the Mackinaw division have been enormous, compared with any previous season since the road was built and the trade in that line will be more than double in 1883. Lumbermen anticipate a strong demand for dry lumber during the winter and next spring, and the winter shipments east will, in all probability, far exceed those of any season for years past.

RUSSIAN FORESTRY.

The Buffalo *Lumber World* says:—Russia has a very complete system of forestry. There are 762 large Government Forestry stations under the general charge of an equal number of educated Directors, most whom are college graduates who have taken lessons in the Forestry Schools in a post-graduate way. These forests contain over 300,000,000 acres without including an acre of the sparsely covered tracts on the northern Tundras. These are divided into 12,502 named forests, which are under the management of the 762 Directors. A part of these Government forests are of native growth, but all of the central and southern provinces have immense plantations of trees best suited to the somewhat varied steppes. In some places the plantations are almost exclusively of Scotch pine, in others of oak, birch, basswood, elm, etc. Mixed planting is not counted best as a general rule. In the steppe sections the planting has been done with the main idea of modifying the climate, and new stations are now being organized in portions where the present rainfall is only six inches per annum, and even drifting sands are being planted with *salix acutifolia*, to be followed, as soon as the surface is covered with pine.

Tree Culture

H. W. S. Cleveland, in his important pamphlet on "The Culture and Management of our Native Forests," says that we must learn to imitate nature in our methods of cultivation if we would grow new forests successfully. The primary point is to keep the trunks of the tree shaded. Nature does this by massing the plants closely together in the forests, so that they shade each other, or by giving a a wide spread of limbs with low heads to trees in the open. It also protects the cambium layer with thick deposits of old bark, and we endanger the health of the tree when we scrape that off. Another important point is to keep the roots well mulched, as nature does with old leaves, thick mould and mosses in the forest; and a third point is to protect the trees well from the southwest wind—the breeze which, with its drying heat, is the most damaging to the vitality of the tree. In illustration of the vitality of this rule Mr. Cleveland points to the greater luxuriance and variety of plant life on the east side of seas and lakes than on the west side.—*Lumberman's Gazette.*

THE TRADE OF ARCHANGEL.

From Messrs. Gribanoff, Fontaines & Co's annual circular, just received, we gather that the total quantity of deals exported during the present year amounts to 306,478 std. doz., against 294,885 std. doz in 1881, and 420,250 std. doz. in 1880; the average of 1876 to 1879 was equal to 322,661 std. doz. Of this quantity 271,760 std. doz. of the deals were exported to Great Britain and Ireland, and the remainder —34,718—to various continental ports. The shippers of the goods this year, with the proportionate quantity in std. doz. each shipped, are as follows:—White Sea Company, 76,015; F. Scholtz, 62,857; E. H. Brandt & Co., 61,592; N. Russanoff & Co., 54,228; Gribanoff, Fontaines & Co., 35,552; G. Pochinkoff, 7,734; S. Lemiahoff, 5,660; and sundry firms, 2,840.

In anticipation of next year's supply, Messrs. Gribanoff, Fontaines & Co. remark in their report that, "judging by the supply of logs brought down last summer, and now available for winter cutting, next year's shipments will be about equal to those of the past season; but, as regards future years, prospects are far from favourable, the Government having again imposed a considerable addition to the excise duty, which exporters cannot afford to grant, and unless the difference is quickly adjusted, the mills will have to be stopped next year."

RAPID GROWTH OF TIMBER TREES.

A writer in the *Canadian Horticultural* reports that he has a field of black walnut trees two feet in circumference, that are 12 years old. From this the rapidity of growth of this wood and their value for raising as timber trees can be calculated.

The writer of this item knows a black oak near his residence that is now 16½ feet in circumference, that is about 26 years old.

Catalpas 3 years from seed and undisturbed all that time, are now four inches in diameter, others seven years old are 10 inches in diameter, and 22 feet high. The speciosa or hardy catalpa has withstood a cold winter of 32 degrees below zero, without a loss of even the tip of a branch. The timber from this tree is of the most enduring kind, it grows with equal facility from seeds or cuttings, the flowers are very fragrant and beautiful, and the whole tree forms a very desirable ornament to any plantation.

It is not a good sidewalk tree, though often used for that purpose, and thrives best in groves or special plantations, grown close, in cool, moist bottomlands, though it will do well in upland soil.

The Ottawa Valley Cut.

The lumbering operations the past season in the Ottawa Valley have turned out most successful. The *Free Press* gives the following as the cut:—E. B. Eddy's South Shore and Hull mills, 100,000,000 feet; J. R. Booth, 50,000,000 feet; Perley & Pattee, 50,000,000 feet; Bronson & Weston, 60,000,000 feet; Levi Young, 20,000,000 feet; Sherman, Lord & Hurdman, 20,000,000 feet; Rochester's 10,000,000 feet; Mason's 5,000,000 feet; Gilmour & Co. 70,000,000 feet; McClymont, New Edinburgh, 50,000,000 feet; McLaren & Co., ditto, 50,000,000 feet; W. C. Edwards & Co. Rockland 60,000,000 feet; J. A. Cameron's, North Nation, 25,000,000 feet; Conroy Bro., Deschene, 25,000,000 feet; McLaughlin Bros., Arnprior, 70,000,000 feet; Gillies Bros., Braeside. 55,000,000 feet; McLaren Bros., Buckingham, 65,000,000 feet; sundry others, 15,000,000 feet. Total cut, 800,000,000 feet.

Alcohol Sugar and Paper Pulp from Wood.

Braconnot's process, as described in an Austrian paper, consists in mixing sawdust carefully with an equal weight of sulphuric acid, not allowing the mixture to get hot; and after a while diluting the paste mass with water and heating to boiling. When decomposition is complete, the acid is neutralized with carbonate of lime, and the glucose thus obtained is fermented in the usual manner by adding yeast to it. Owing to the large amount of sulphuric acid required, the results hitherto obtained do not favor its introduction on a large scale. But, on the other hand, the manufacture of spirits may perhaps be profitably combined with paper making.

Very satisfactory results were obtained by Bochet and Machard by treating wood shavings with hydrochloric acid under pressure. They treated 4,000 pounds of wood with 8,000 pounds of water containing 800 pounds of hydrochloric acid for ten or twelve hours in wooden vats, the mass being kept boiling by live steam. The hot acid dissolves off the incrusting material from the wood, which is thereby converted into a dry mass that is easily converted into paper after being washed with water. The acid liquid contains from 20 to 22 per cent. of grape sugar to 100 parts of the dry wood. The liquid is then saturated with chalk, and fermented at 24° to 25° C. (75° to 77° Fabr.). One cubic meter of pine wood weighing 435 to 440 kilos is said to yield 780 to 790 liter per cent. of alcohol (equal to 39 or 40 liters of 50 per cent. spirits), which is worthy of consideration.—*Scientific American.*

Antiquity of the Frame Saw.

A frame saw is shown in a painting of Herculaneum. The sawyers are at each end, one standing and the other sitting. The bench to which the timber is secured by clamps is supported by four-legged stools. The saw frame is square, and the saw blade is strained in the middle; the teeth stand perpendicular to the plane of the frame. Frame saws were common in Egypt many centuries previous to this time.

A Heavy Sale of Pine.

S. Bryant, of Milwaukee, and Louis Sands, of Manistee, Mich., recently purchased 6,000 acres of land in Langdale county, Wis., about five miles from Antigo, on the line of the Milwaukee, Lake Shore & Western railroad. It is estimated that on the land there are at least 700,000,000 feet of pine. The purchase price was $210,000, and Mr. Bryant, it is stated, is interested in the sum of $180,000. The road named above will lay a track for the purpose of opening up the timber, and the logs will be taken to a mill at Antigo which has a capacity of 70,000 feet of lumber and 120,000 shingles daily. Besides the pine, there is a good assortment of hardwood timber. Track-laying on the spur road was begun December 4.—*Northwestern Lumberman.*

A CITIZEN of Grand Forks, D. T., returning from the westward, reported that he saw on the road to Devil's Lake 50 teams in a string, all loaded with lumber, bound for the "boomers'" new paradise. The Devil's Lake Townsite Company has been formed, with an alleged capital of $3,000,000 and will proceed to plat and boom the town, so-called.

THE Detroit, Lansing & Northern road is building a branch from Rodney, Mich., north, seven miles, to a lake surrounded by hardwood timber, and having a large body of pine adjacent. After a time, it is thought, the branch will be continued to Evart, and tap the Flint & Pere Marquette road. The lake in question is 15 miles from Big Rapids, from which point it also intended to build a connecting line.

THE crew of the Katahdin Iron Works at the point in Maine named after that concern, is now in the woods, and will get out about the same amount of timber as on last year, or about 15,000 cords, which will produce 600,000 bushels of charcoal. About 100 men are employed in getting out maple, birch, ash and other woods. In this section the timber supply is held to be almost inhaustible, some kinds of wood growing about as fast as cut.

HR. F. T. GRAFFE, late of the Priuce Arthur's Landing *Herald*, is reported by the Winnipeg *Times* as saying:—"At present Prince Arthur's Landing is without a saw mill, but the erection of a large one is contemplated by the Thunder Bay Lumber Company. At the Carpe River, fifteen miles from the Landing, a man named Carpenter has a mill and intends putting up another this winter at the same place. It is calculated that Thunder Bay will send over two million feet of lumber to Winnipeg next season. The Thunder Bay Co. have over 100 men and 30 or 40 teams in the woods, and each man receives $35 a month and board. There is also some talk of erecting a factory for turning raw material into woodenware of various kinds."

CURRIE BOILER WORKS

ESTABLISHED 1852

MANUFACTURERS OF

STEAM BOILERS.

NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTIN & Co.

Esplanade, Foot of Frederick Street, TORONTO.

1Lly

IN the maintenance of French railways since 1877 there has been a daily use of 700 trees for ties alone, and 5,000,000 cubic feet of timber have been required yearly for rolling stock.

CLINTON, Me., forests will suffer considerably this winter. J. M. Winn & Co. have a contract for 2,000 cords of spruce, and 400 cords of popular for the pulp mill of Benton. They will cut, besides, a considerable quantity of hardwood logs and cordwood.

A CURE FOR CROUP.—There is no better remedy for Croup than Hagyard's Yellow Oil taken internally and applied according to special directions, this is the great household panacea for Rheumatism, Stiff Joints, Pain, Inflammation, &c.

Wanted.

A PARTNER that understands the SAW MILLING BUSINESS, with capital. For information address JAMES B. DICKSON, Pembroke, Ont. 21L6

WANTED.

BLACK ASH PLANK

Sound, Square Edged and largely clear of knots; 3x8 to 18 inches wide, 10 to 16 feet lengths. Can use it green. Quote for 3 to 5 cars per month, delivered at Boston, Mass.

ROBERT C. LOWRY,
Wholesale Lumber,
21L4 55 Pine Street, New York.

Important Auction Sale

OF

VALUABLE

Timber Limits

In the High Court of Justice, Chancery Division.

McTIERNAN VS. FRASER.

Pursuant to the order for sale made in this action dated the 25th day of October, 1882, there will be sold at Public Auction by and with the approbation of William Marshall Matheson, Esquire, Master at Ottawa of the Supreme Court of Judicature for Ontario, at the Grand Union Hotel, at the City of Ottawa, on THURSDAY, the 21st DAY OF DECEMBER, 1882, at 2 o'clock p. m., the following Timber Limits:—

PARCEL No. 1.

Limit on the River Dumoine, License No. 300 for season 1881-2, issued by Crown Lands Department of Quebec, area 30 square miles. This limit is in the Province of Quebec and is situate along the east shore of the River Dumoine, about 42 miles from Des Joachims on the Ottawa River. It is easy of access and has a good road leading to it from Des Joachims. It contains a large quantity of white pine of excellent quality and for the most part of large size; there is also some red pine of good quality. Timber cut thereon can be easily driven through Mason Creek and North River, (both well improved streams), to the River Dumoine, and thence along the River Dumoine to the Ottawa River. The distances for hauling timber vary from one-eighth of a mile to five miles, but generally less than three miles. With this limit there will be sold the right to use the farm and depot used in connection therewith known as North River Farm, and situate about the centre of said limit. The farm consists of about 100 acres of land, cleared. The soil is a sandy loam. On the farm are the following buildings, viz.: A good log house about 20x26 feet, one storey and a half; one log barn well finished, about 30x40 feet; good store house, about 26x36 feet; also horse stable, cow-stables, hen house, root house and other sheds and outbuildings.

PARCEL No. 2

Limit on West side of Black River, License No. 228 for season 1881-2, issued by Crown Lands Department of Quebec, area 50 square miles.

This limit is in the Province of Quebec, is situate along the west side of Black River, and is about five miles in a north-easterly direction from the north-east corner of parcel No 1. It is easily reached by road leading from Des Joachims through Dumoine Limit. It contains a large quantity of white pine of very good quality. Timber cut thereon can be driven without any difficulty through two good Creeks, known as Coughlin Creek, and upper West Branch Creek, to Black River, and thence along Black River to the Ottawa River. The distance for hauling timber will average about 2½ miles. With this limit there will be sold the right to use the farm and depot used in connection therewith, known as Hope Farm. This farm is situated about 15 miles from said limit, and connected with it by a good road on a limit owned by Millar and Grant. It consists of about 200 acres of land, cleared. The soil is loam. On the farm are the following buildings, viz.: double shanty, about 26x52 feet, two log barns, with shingled roofs, two log stables capable of accommodating 32 and 14 horses respectively, store house, granary, cow house, cow sheds, hen house and root house.

PARCEL No. 3.

Limit on East side of Black River, License No. 303 of season 1881-2, issued by the Crown Lands Department of Quebec, area 50 square miles.

This limit is in the Province of Quebec, and is situate along the east side of Black River, opposite parcel No. 2. The timber thereon is white pine of very good quality. Timber can be driven without difficulty through Cavreau Creek and Black River to the Ottawa River

With this limit there will be sold the right to use the farm and depot used in connection therewith, known as the Cavreau Farm, and situated on the edge of a lake on Cavreau Creek, about 3½ miles from Black River. This farm is on the limit and consists of about 100 acres, cleared. The soil is good loam. On the farm are the following buildings, viz.: Log house about 20x26 feet; two cedar log barns, one about 30x40 feet, the other about 26x36 feet, one stable capable of accommodating about 20 horses, cow house, blacksmith's shop, hen house and root house.

PARCEL No. 4.

Limit on Black River and River Coulonge, License No. 242 for season 1881-2, issued by Crown Lands Department of Quebec, area 15 square miles. This limit is situate along the Eastern line of parcel No. 3. It is well timbered with white pine of fine quality. Timber can be easily laid on either Bruce Lake or Bruce Creek and driven to River Coulonge, and thence along the Coulonge to the Ottawa River.

All the said limits are easy of access, being a convenient distance from the Ottawa River.

The said limits will be sold subject to reserved bids fixed by the Master in parcels as above mentioned.

All hay, goods, chattels and shanty rigging on each parcel belonging to the partnership of McTiernan & Fraser, may at the option of the purchaser of each parcel be taken at a valuation to be subsequently fixed by the said Master.

TERMS OF SALE.—The purchase money is to be paid as follows:—Ten per cent. to be paid to the vendors' solicitors at the time of sale; a further sum sufficient to make up 25 per cent. thereof within twenty days from the day of sale, to be paid into Court to the credit of this cause, and the residue thereof to be paid into Court at any time within four months from day of sale with interest thereon, at the rate of seven per cent. per annum from the day of sale

All conveyances, searches, transfer fees, etc., payable to the Crown, are to be at the expense of the purchaser.

In all other respects the terms and conditions of sale will be the standing conditions of the Chancery Division of this court.

Further particulars may be had from Messrs. Scott, MacTavish & MacCraken, or Messrs. Pinhey & Christie, Solicitors, Ottawa.

Dated this 14th day of November, A. D., 1882.

W. M. MATHESON,
Master at Ottawa.

SCOTT, MacTAVISH & MacCRAKEN,
2L23 Vendor's Solicitors.

THE OTTAWA SEASON.

The Ottawa *Citizen* of Nov. 28, says :—One of the most successful seasons that ever the lumbermen of this section of the country experienced, as far as the operations in their various mills were concerned and the remuneration derived from their labors in this direction, came to a close yesterday. Everything seemed to combine to make the work of the summer a grand success. On the 25th of April last the different mills in the vicinity commenced to run full blast, to the great gratification of the thousands of the toiling millions who derive a sustenance from the lumbering business. Capital and labor, which two often are antagonistic to each other, seemed to be well satisfied under the auspicious circumstances which dawned upon the event. Workmen were more than well pleased at the fact that their wages were raised from $2 to $3 per week over the preceeding year, while lumbermen did not by any means grudge the extra pay, seeing that the rise in lumber was more than sufficient to meet the increased expense of their pay sheet. This was not only the case with the beginning of the season's work, but the same pleasant circumstances attended the doings of employers and employees until the close of the chapter yesterday. Prices of the article were kept up, and wages instead of being reduced were, in not a few cases, increased. The usual calendar of accidents happened, but very fortunately these, too, were in nearly all cases of not a very serious character. Slight delays from, to use a common expression, "the want of logs," or, more correctly speaking, the irregularity with which they arrived. of course, as is usually the case, did occur. But even these minor troubles which, more or less are to be looked for in such extensive operations which are connected with the carrying on of the staple industry of the capital, were fewer than is generally the case. Low water neither annoyed the millmen nor their workmen to any degree worth speaking of, and, viewing the whole business trade impartially, it may safely be said that the annoyance caused from temporarily "shutting down" was of very small magnitude indeed. A *Citizen* reporter visited the Chaudiere and Hull yesterday and observed that all the mills, with the exception of Mr. Booth's, had closed for the season, and it was expected that Mr. Booth's mill would shut down last night, thus bringing to an end, as already stated, the work in that line for the present year. In conversation with a lumberman it was ascertained that the season's cut would exceed any of former years. He considered, after adding up the cut by each firm in the surrounding district, that it would be a reasonable and fair total, in the absence of the correct figures, to say that the year's cut in all the mills combined would amount to about 550,000,000 feet of lumber. By including all the mills in the Ottawa Valley there certainly would not be much less than 800,000,000 feet. In his opinion it was the best season that ever the Ottawa lumbermen or their employees experienced. The business done was in excess, the prices obtained greater, and the time of running longer than have been the case for a number of years. True the money expended for labor was more than heretofore, still there was a balance of extra profits over preceeding years in favor of the mill owner. The only real difficulty that the proprietors experienced was the scarcity of hands to perform the work. It is truly gratifying to be able to record such glad tindings, as Canada's most important export trade, outside of grain and dairy exports, is that of timber. Next to our fertile lands our primeval forests are our greatest sources of wealth. Few people, outside of the capital, have any conception of the amount of revenue derived from the lumber trade which is carried on along the banks of the Ottawa.

WHITEWOOD.

The following letter appears in the London *Timber Trades Journal* :—

SIR,—I shall be very much obliged to your, or any of your numerous readers, if your or they can or will tell me which is the softest white (spruce fir) wood, and at the same time most free from knots and easy to work, that is imported into this country from any quarter of the globe ; and also if wood of *Pinus macrocarpa, Pinus Lambertiana, Pinus monticola*, or any other of this section of whitewood pines, except ing the Quebec (Weymouth) pine, is brought into the United Kingdom ?

I was once offered some "whitewood" Balm of Gilead (*Picea balsamea*) : is this an ordinary article of commerce ? and, if so, what are its peculiar properties ? is the wood of any other silver fir (*Picea*) imported into this country ?

I think the "whitewood" which is frequently advertised in the *Timber Trades Journal* is not of the *fir* tribe at all; I believe it is the produce of *Liriodendron tulipifera* (tulip tree), or *Platanus occidentalis* (Western plane), or some such like tree.

Should the Scottish Arboricultural Society be successful in their laudable endeavors to hold an International Exhibition of Forestry, it is earnestly to be hoped that they will invite the whole known world to contribute specimens of every kind of wood, and see that the native country, the common name, the botanical name, and the name, if any, by which the wood is known in commerce, be given ; this of itself would make any exhibition a certain success, and would be of everlasting benefit to mankind in general, and particularly interesting to tens of thousands besides.

A WOOD MAN.

ENGLISH LAND COMPANY.

Under this heading the Bobcaygeon *Independent* publishes the following correspondence in regard to the Canadian Land and Emigration Company :—

Mr. Ross, of Quebec, has been for some time past negotiating for the purchase of nine townships of the English Company. His first offer was refused, but the second offer was entitled to more consideration. The following is a copy of the letter addressed to the Company making the offer :—

New York, Oct. 5, 1882.

"DEAR SIRS,—I am instructed by James S. Ross, Esq., of Quebec, to make the following offer for the Canadian Land and Emigration Company's property, real and personal, in the county of Haliburton.

The price offered is eighty thousand dollars payable as follows : He will assume the Debentures and the interest from 1st July, 1882, (amount exclusive of interest) $31,500. He will pay cash on signing the papers $20,000. Balance $28,500 in three equal annual instalments, viz., $10,000 twelve months from the date of signing the papers ; $10,000 twenty-four months from the date of signing the papers, and $8,500 thirty-six months from date of signing the papers, all with interest at the rate of 5 per annum, payable semi-annually on unmatured amounts.

The property is all the real property of the County of Haliburton, say in the nine townships of Dysart, Harcourt, Guilford, Harburn, Eyre, Dudley, Clyde, Havelock and Bruton, being about 336,638 acres, including all mills, houses and other improvements in which the Company have any interest, and personal property of all kinds and descriptions in the County of Haliburton. Also claims against settlers and rights of all kinds, maps, plans, field notes, and all other documents relating to the lands, also a payment in advance by Booth of $3,309, and all existing timber licences and interest thereunder up to 1st of October, 1882, and thereafter, excepting amounts payable by Irwin & Boyd, and Bronson & Weston on account of past timber dues, say for 1881-2.

As soon as this offer is accepted the documents may be prepared for signature, and the transaction carried out.

Yours, &c.,
P. S. STEVENSON."

This letter was addressed to Major Evans of Toronto, and his colleagues, the Company's Commissioners, who in forwarding the offer to the members in England expressed their opinion as follows :—

"We now forward you an offer we have obtained from Mr. Stevenson, on behalf of James S. Ross, Esq., of Quebec, for the Canadian Land and Emigration Company's property.

"The offer may appear small, but when it is remembered that it is very questionable whether it is safe to anticipate the sale of lands in any quantity, and the certainty of the timber revenue coming to an end shortly, it seems advisable that it should not be thrown aside without being examined in all its aspects. As it presents itself to us it would seem that this offer ensures the shareholders from an further calls, and also admits of some small return of paid up capital.

"Should the Company continue to hold the property, it is doubtful whether in the space of three or four years, the expense not being able to be met by timber revenue and sale of lands, it would not be necessary to levy a call of unpaid stock. And even after doing so, and holding on, it is improbable the property would enhance sufficiently in value to obtain a better return to the shareholders than they would under the present circumstances.

"It is true the taxes may be reduced and some more railway debentures paid off so as to reduce expenses, but still, looking at this in the most favorble light, we fail to see that better terms would even then be likely to be realized.

"Under these circumstances, after the opportunity we have had during the last two years of thoroughly convincing ourselves of the value of the property, we have no hesitation in recommending to your Board the acceptance of Mr. Ross's offer."

The following is an extract from a letter of one of the solicitors of the Company in Toronto :—

"The inferior pine and the hardwood left would yield an income only by the Company starting new industries, which would involve an investment of fresh capital, and would be successful only if looked after by men who thoroughly understood the work.

"I suppose the shareholders would hardly risk any more money in a venture which would be doubtful.

"I have not much confidence in the Company being able to sell these lands to small buyers ; not only are the surrounding free grant lands a bar to this, but every one who wants land is looking towards the North-West prairies to invest.

"It seems to me that in view of the danger of the decreasing revenue and the liabilities of the Company, that they cannot afford to remain inactive, and that either they must spend money in making the small pine and hardwood productive or sell."

This subject is now under consideration in England.

Grasping the Grant.

The *Northwestern Lumberman* says :—By the completion of the extension of the Chicago, St. Paul, Minneapolis & Omaha road from Superior Junction to Superior City, Wis., 60 miles, that company secures a clear title to what is known as the north Wisconsin land grant, which embraces some of the most valuable timber land in Wisconsin. The same company has about secured the title to the old Chicago Air Line railway grant between Chippewa Falls and Superior Junction, now having the road graded and the iron nearly all laid between those points. The latter grant is estimated to be worth about $2,000,000. Within six weeks the Omaha company will have its Ashland extension completed, and early next season a branch to Bayfield will be constructed. Thus this corporation is covering the lumber region of northwestern Wisconsin with a fan-shaped system that will monopolize the lumber and other traffic of that portion of the state, and their land grants will help on their monopoly. But the railroads will be a great help to the lake towns, and will develop the country rapidly.

A Big Tree.

Mr. W. L. Van Doren furnishes to a California paper the following description of a tree that was recently cut in Sonoma county :—

The standing height of the tree was 347 feet, and its diameter near the ground was 14 feet. In falling the top was broken off 200 feet distant from the stump, and up to the point of breaking the tree was perfectly sound. From the tree 12 saw logs were cut of the following lengths and diameters : Fourteen feet long, 9 feet diameter ; 12 feet long, eight feet diameter ; 12 feet long, seven feet seven inches diameter ; 14 feet long, seven feet six inches diameter ; 16 feet long, seven feet diameter ; 16 feet long, six feet 10 inches in diameter ; 16 feet, six feet six inches diameter ; 16 feet long, six feet four inches diameter ; 16 feet long, six feet three inches diameter ; 18 feet long, six feet diameter ; 12 feet long, five feet 10 inches diameter ; 18 feet long, five feet six inches in diameter. It will thus be seen that 180 feet of this remarkable tree were converted into saw logs. As the length and diameter of each log is given, the reader can, at leisure, figure out the quantity of inch lumber the tree contains. If, instead of being cut into lumber, it had been worked up into seven foot pickets, it would have afforded fencing material to enclose a good-sized ranch.

The paper asks, "Can any of our mill men in the East furnish us with statistics exceeding those of the above described giant ?"

BIRCH MILLS.

At Bethel, Me., William E. Skillings & Co. are running eight sets of machinery for finishing spools, and are extending their mill 50 feet, in order to add four more sets, which will make their capacity double that of any mill in the county. The firm uses the product of seven mills in the vicinity of Bethel, besides that of its own, and has recently purchased 5,000 acres of birch land in Gilead, on which a mill for sawing strips is being erected. It will require 5,000 cords of birch to fill contracts already for next year. Of this, 2,000 cords will be cut from the Gilead timber, and the remainder will be purchased of farmers, the price paid being $4 per cord. A contract has been made to ship 1,000,000 feet of birch strips to the well-known thread manufacturers, J. P. Coates & Co., of Scotland, next spring. Eben Richardson & Son are running their mill to its full capacity on spool strips and salt boxes, employing 10 men. John L. Swan saws 200 cords of birch into strips during the season at his water mill, and Hiram Hodgsdon saws about as much. A. S. Bean is also an operator in that vicinity.—*Northwestern Lumberman.*

Nothing New.

There is nothing new under the sun ; even our forestry associations had their prototypes in Pagan Rome and Moorish Spain. Al Moctader, the caliph of Bagdad (1091-1117), also planted millions of forest trees ; and it is a distressing fact that then, as now, many clear-sighted men foretold the consequences of reckless forest destruction, and that their protests had no appreciable influence in checking the evil. The trouble seems to be that tree-felling is directly profitable and only eventually injurious, while tree planting is directly expensive and only indirectly advantageous. Forest destruction has ruined our earthly paradise and the scientific authorities of all really enlightened nations have denounced it again and again ; but before such arguments can influence the masses they must cease to seek their paradise in the clouds and their authorities in Palestine.—*Popular Science Monthly.*

Lake Shipping.

It is probable that lumber carrying on the lakes will, within a few years, be exclusively done by steam instead of sailing vessels. This year, on account of the low freight rates, and the competition of steam barges, the schooners have had a hard struggle to pay expenses. While the sailing fleet is wind-bound at one port or another, the steamers continue to make regular trips and carry enormous loads. While steam barges that have a capacity for from 500,000 to 750,000 feet of lumber have made money this season—in some instances $15,000 a vessel—schooners have scarcely paid expenses. In seasons when rates are high they are able to do fairly ; but in competition with steamers the odds is so much against them that owners will gradually dispose of that class of craft and invest in a more modern kind.—*Northwestern Lumberman.*

It Always Works Just This Result.

Mr. John Bonner, proprietor of the celebrated Yonge street Dry Goods and Gents Furnishing Store, Toronto, tells a most remarkable story of the Great German Remedy. "St. Jacobs Oil cured me of a bad case of neuralgia, of five years standing, when I had given up hopes of being cured, and had tried fifty different so-called remedies. I now keep it all the time not only at home, but here in my place of business ; it is an excellent thing and something nobody should be without."

Chips.

It is estimated that there have passed through the boom of the St. John (N. B,) River, this season, about 126,000,000 feet of logs.

A Poplar tree recently cut in Clark county, Ky,, was seven feet in diameter, 70 feet to the first limb, and yielded 60,000 shingles.

It is stated by local authority that upwards of 150,000,000 feet of lumber are cross-piled at the Muskegon, Mich., mills, and in some instances there is not room enough on the docks to continue piling.

It is told that in digging a well near Leitchville, W. T., Charles Moore encountered, at a depth of 70 feet, several fallen but well preserved pine trees. Immediately under them was a washed gravel bed, which upon being pierced, gave a flow of water which rose in the well to a eight of 25 feet.

At Oshkosh, Wis., last year there were 129,000,000 feet of logs rafted; this season the amount has reached 135,000,000 feet. About 5,000,000 of the total were old logs that go to the booms next season will all be new ones. It is expected that the crop of 1883 will be about the same in quantity as that of 1882.

A log was recently cut on the Skagit waters, Puget Sound, which was nine feet in diameter at the stump. The first cut was 24 feet long, and the next log 32 feet in length, and 76 inches in diameter at the big end, while the third was 36 feet long, and measured 63 inches—in all 92 feet of logs, and an average diameter of over five feet.

J. G. Palmer & Son, of Maine, have 100 men at work in the woods near the Gulf. Thus far this season they have cut 1,500,000 feet of poplar to be used by the Penobscot Chemical Fiber Company in the manufacture of pulp. It will probably be hauled to the Katahdin Iron Works, and thence shipped by railroad to West Great Works.

The "Deseronto Notes" of the Belleville *Ontario* contain the following paragraph:—To the ordinary observer sawdust is a very commonplace article, but a few minutes conversation with Mr. Walker, the manager of the Chemical Works, will dispel such an illusion, as the number of products to be derived from it are apparently legion. The evaporating pans disclose to the visitor every conceiveable combination of brilliant and changing colors.

T. & W. Murray, of Pembroke, have disposed of one of their timber limits to H. & A. McLean, of Eardley. The price paid was in the vicinity of $41,000. The limit comprises 19 square miles of territory. A couple of years ago the Messrs. Murray purchased this limit at auction for $25,000. The same firm have also disposed of another timber limit adjacent to the one mentioned to David Moore, the well-known lumberman. It is said the price is $1,000 per mile for thirty miles of territory.

The Liverpool correspondent of the *Timber Trades Journal* of Nov. 18, says:—For some days past it has been rumoured that a firm engaged here in the timber importing business, having their connection chiefly with the Lower Ports in Nova Scotia and Norway, have been unable to meet their engagements, and have placed their books in the hands of accountants. Nothing is known of the amount of their liabilities, and it is understood that their principal creditors will be the shippers in Nova Scotia.

The *Timber Trades Journal* says:—The value of spruce wood for shipbuilding purposes has for a length of time been fully admitted. Some fine sailing vessels built in New Brunswick some years ago have been recently inspected, and the inspection has proved the suitability of spruce for shipbuilding purposes. It was the fashion some years ago to loudly condemn spruce being used for almost any purpose. As a matter of fact, under anything like favorable conditions, few woods are more durable than spruce. The unfavorable character which the wood once possessed still to some extent clings to it, but the prejudice which once existed against its use is now fast dying out, and the time will soon arrive, even if it has not already arrived, when the true value of the wood from a seviceable as well as from an economic point of view will be fully recognised.

The Midland *Free Press* says—The engine and lot of other machinery for the American Company's mill at French river is here and will be forwarded by the schooner Nett Woodward this week. The engine, which is a handsome one, weighs ten tons and is about 270 horse power. The machinery now lying here will make a large boat load. Every piece of machinery being put in this mill is new and has been made expressly for the Company. With this load Mr. D. C. Keene will send about twenty more men to work at French River all winter.

According to the Chicago *Railway Age*, a railway running along for hundreds of miles between rows of shade trees will soon be one of the novel characteristics of the Northern Pacific. This extensive tree planting is being done to protect the road from storms and snowdrifts. In addition to having a large force of men at this work between Fargo and Bismark, Dak., the officers have distributed immense quantities of seedlings and cuttings to the farmers settled on the land grant and offered prizes for skill in forestry—a commendable example of foresight which ought to be more generally followed in the treeless west.

The *Times* of Prince Albert, N. W. T., says: Messrs. Moore & Macdowell have erected a new steam saw mill of increased capacity. The machinery (which Mr. Mcdowell has gone east to bring up) will include two large circular saws, shingle machine, lath machine and complete set of planers and moulders. This mill will be capable of turning out 4 or 5,000,000 feet of lumber in the season. A fine large new grist and saw mill is also in course of erection by Messrs. Thomas McKay, C. Mair and Captain Hughes, which will be a valuable addition to the industries of the place. Messrs. Hurd and Baker intend building a new saw mill.

The Liverpool correspondent of the *Timber Trades Journal* of Nov. 18, says:—Up to the present time very little spruce has gone into the yards, but, as was anticipated last week, four cargoes are now being put into store, as the owners hope for a recovery later on. All kinds of Canadian goods maintain their full prices, and buyers of the better classes of Quebec pine timber and pine deals may abandon any hope of buying their stocks of these goods at lower prices than now asked. Consumers need not be told that they seldom buy so well as when the goods are landing and the storage charges have not been incurred, and, as the import season is now rapidly closing, they should seize the opportunity whilst they may.

The *Northwestern Lumberman* says:—Some of the lumbermen in Muskegon anticipate an advance in the value of fine lumber after January 1, because that class of stock is in meagre supply compared to the coarse grades, which are overplenty. They claim that the finer grades of next season's cut are being bought up in advance. The same condition has been observed at Saginaw, where good lumber is being purchased to hold over, while the coarser qualities are neglected. These incidents in the Michigan trade suggest that last year, on account of the lack of snow, and the consequent difficulty of getting heavy logs to stream, operators took almost anything they could get in the shape of pine timber, and the result is an overproduction of coarse lumber.

The *Timber Trades Journal* says:—Beyond a slight, and it may only be a temporary, decline in the value of spruce deals at Liverpool, the wood markets have during the last fortnight undergone no material alteration, The weakness of the market at Liverpool is clearly traceable to the influx of spruce cargoes, which has temporarily overstocked the market. The inland consumers, who draw upon Liverpool for their supplies, have bought warily during the whole of the year, and a general indisposition to stock heavily has been apparent. It is not thought that the stocks held inland are of a weighty character, and any bettering of trade would doubtless reflect at once upon the wood markets at the ports, and especially at Liverpool. Some part of the falling off in the demand may be put down to the fact that the wet weather which has now so long prevailed has seriously retarded the carrying on of outdoor building work. At the east coast ports prices are reported to remain unaltered and the markets are said to be steady in tone.

SAW MILLS!

Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,

ST. THOMAS, ONTARIO.

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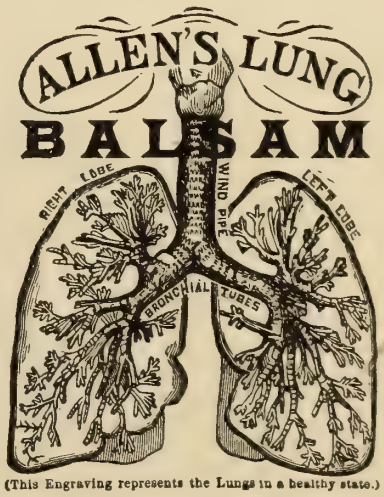

(This Engraving represents the Lungs in a healthy state.)

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The PAIN-KILLER is sold by medicine dealers throughout the world, Price 20c., 25c., and 50c. per bottle.

Market Reports.

TORONTO.

From Our Own Correspondent.

Dec. 9.—The present spell of severe frost and snow has had the effect of impeding building operations and as a natural consequence all the retail yards are extremely quiet, and dealers are now counting over their probable gains or losses on their season's business. Trade will doubtless continue dull until after the close of the holidays, when if the weather proves favorable building will be resumed as briskly as in the past.

Their is no change in prices to note and unless much larger stocks should be secured this winter, or a slackened demand from the American side in the spring, I take it that prices will rule on the reopening of navigation much the same as at its close. Some small lots of good pine and basswood are still coming forward for spring shipment and will be winter piled on docks here, and in my next letter I will endeavor to place before your readers figures showing the total quantity shipped from this port to the American market, and, as near as it can be got at, the total quantity placed on the local market.

QUOTATIONS, FROM YARDS.

Mill cull boards and scantling	$10 00
Shipping cull boards, promiscuous widths	12 00
" stocks	14 00
Scantling and joist, up to 16 ft	14 00
" " " 18 ft	14 50
" " " 20 ft	15 50
" " " 22 ft	16 50
" " " 24 ft	17 50
" " " 26 ft	18 50
" " " 28 ft	19 50
" " " 30 ft	20 50
" " " 32 ft	22 00
" " " 34 ft	24 00
" " " 36 ft	25 50
" " " 38 ft	27 00
" " " 40 to 44 ft	32 00
Cutting up planks to dry	24 00
" boards "	18 00
Sound dressing stocks	18 00
Picks Am. inspection	30 00
Three uppers, Am. inspection	35 00@40 00

B. M.

1½-inch flooring, dressed	32 00
1½ " " rough	16 00
1¼ " " dressed	26 00
1¼ " " undressed	16 00
1 " " dressed	23 00
1 " " undressed	17 00
⅞ Beaded Sheeting, dressed	22 50
Clapboarding, dressed	14 00
XXX sawn shingles, ℔ M	3 00
XX sawn shingles	2 00
Sawn Lath	2 50

MONTREAL.

From Our Own Correspondent.

Dec. 9.—We have nothing this week to revise in prices which remain steady all around. Trade has been notably slacker since the close of navigation. The stock of lumber in the city is quite large and fairly assorted, excepting some kinds of hardwood, ash particularly is scarce and is being inquired for both for local wants and on United States account; butternut is also wanted. The demand for timber and lumber, except for the retail trade, is likely to be small during the winter. A great number of men have been sent to the lumber regions and if the weather is favorable it is expected that a large quantity of lumber will be turned out, all the mills have sawn most of the logs on hand and large quantities will be required for next seasons operations. The tenders for the new lumber basin in the Lachine Canal are to be called for immediately, and the basin when finished will supply a want which has been long felt by the trade. We quote prices in the yard as under :—

Pine, 1st quality, ℔ M	$35 00@40 00
P ne, 2nd " ℔ M	22 00@24 00
Pine, shipping culls, ℔ M	14 00@16 00
Pine, 4th quality deals, ℔ M	11 00@12 00
Pine, mill culls, ℔ M	10 00@12 00
Spruce, ℔ M	10 00@18 00
Hemlock, ℔ M	9 00@10 00
Ash, run of log culls out, ℔ M	20 00@25 00
Bass, " " ℔ M	17 00@20 00
Oak, ℔ M	40 00@50 00
Walnut ℔ M	60 00 100 00
Cherry, ℔ M	60 00@00 00
Butternut, ℔ M	35 00@40 00
Birch, ℔ M	20 00@25 00
Hard Maple, ℔ M	25 00@30 00
Lath, ℔ M	1 75@ 0 00
Shingles, 1st, ℔ M	3 00@ 0 00
Shingles, 2nd, ℔ M	2 50@ 0 00

CORDWOOD.

Business is very slack just now, but after this cold spell the demand is expected to be brisk. There is very little coming in by rail, and the wharves and canal bank are completely cleared. The chief demand at present is for maple, but no large contracts are being made, and present prices are likely to hold on till spring. We quote at the depot ex cartage :

Long Maple	$7 50
Short "	7 00
Long Birch	7 00
Short "	6 50
Long Beech	6 50
Short "	6 00
Long Tamarack	6 50
Short "	5 00

OTTAWA.

From Our own Correspondent.

Nov. 24.—A deputation representing the deal merchants of Quebec waited upon the Hon. Jonh Costigan, Minister of Inland Revenue, a short time since and requested that a suit now pending against an unlicensed culler of deals be discontinued. The action was entered to prevent the employment of any but licensed cullers. The deputation represented that the staff of deal cullers was altogether unequal to the requirements of the trade. They also said that any restriction in the employment of cullers would prove injurious to a very important interest. The Minister heard their arguments and submitted them to the Department of Justice for a report upon the legal points involved. No decision has as yet been rendered.

Mr. A. Grant's raft of square timber, which was coming down in tow of the brig Canada, has been placed in winter quarters at Sorel.

Not a great number of men are being sent to woods at present, the firms having secured about all they require.

Dec. 11.—All the saw mills in this district have closed for the season. The cut has been unprecedentedly large. In no previous year has everything appertaining to the trade so favorably combined to insure a highly successful result as it has in the past season. The water in the Ottawa and its tributaries has maintained a favorable height thoughout, and consequently logs were easily navigated to the mill ponds. The supply of logs was equal to the demand and the mills kept running unremittingly. No scarcity of men was experienced and good wages were commanded by the hands this season. The Chaudiere mills ran regularly, and the stock yards are now very full. The following is a pretty accurate estimate of the season's cut in the Ottawa Valley :

CHAUDIERE MILLS.

	Feet.
E. B. Eddy	100,000,000
J. R. Booth	50,000,000
Perley & Pattee	50,000,000
Bronson & Weston	60,000,000
Levi Young	20,000,000
Sherman, Lord & Hurdman	20,000,000
Rochester	10,000,000
Mason	5,000,000

ELSEWHERE.

Gilmour & Co	70,000,000
McClymont (New Edinburgh)	50,000,000
McLaren & Co (do.)	50,000,000
W. C. Edwards & Co. (Rockland)	60,000,000
J. A. Cameron (North Nation)	25,000,000
McLaughlin Bros. (Arnprior)	70,000,000
Conroy Bros. (Deschenes)	25,000,000
Gillies Bros. (Braeside)	55,000,000
McLaren Bros. (Buckingham)	65,000,000
Sundry others	15,000,000
Total cut	800,000,000

ON THE UPPER OTTAWA.

A large quantity of logs and square timber will be cut on the limits this winter. A large number of jobbers intend operating. The ice on the lakes has taken, and supplies can now easily be conveyed to the shanties. The roads are reported to be very good.

A TRYING TRIP.

Mr. Geo. Sparks, drover, left this city about the middle of last month with a drove of 300 cattle for Allan Grant's shanties 300 miles up the Kippewa. Mr. Sparks had 18 men assisting him. They arrived safe at the shanties without losing a single animal. They were compelled to undergo severe hardship on the trip. They had to sleep out during the nights, and wade through streams and marshes, etc.

CHICAGO.

The *Northwestern Lumberman* of Dec. 9, says : Manufacturers and wholesale handlers of lumber are waiting for the figures that shall aggregate the stock on hand at the leading markets and in the country at large. The yard managers and their clerks will be allowed to attend to the current winter trade, while the wisdom and the energy of mill companies and general operators are busy with the coming log crop, which promises to be as large, or larger, than that of last year.

At the east the surplus does not appear to be excessive. At Albany holders do not admit that there is any more in the yards than there ought to be. It is noticed there that, whereas formerly dealers did not pretend to ship anything during the winter, and did not even keep their yard offices open, within two or three years their office fires are kept burning, and shipments are frequently made in the winter time. This change has been wrought by the increase in the Albany trade. Another noticeable feature of the businees at that point is the increasing importations of hemlock and spruce. This season the demand for these kinds of lumber has been active, and some descriptions of them have been shipped as fast as they have arrived. It is stated from one place in central New York that hemlock lumber has advanced $2 a thousand within a year in that locality. In various places in that state there is a reported scarcity of the coarse lumber that, up to a recent time, was supplied from the native forests. Good pine, in not only New York, but the New England states, now has to be brought from Canada and Saginaw—localities as remote from places of consumption as many parts of the Northwest from their sources of supply. This condition must be taken into account in estimating the future of the lumber business.

CARGO QUOTATIONS.

Short dimension, green	$10 50@11 00
Long dimension	11 00@12 50
Boards and strips, No. 2 stock	12 00@14 00
No. 1 stock	16 00@19 00
No. 1 log run, culls out	17 00@22 00
Standard shingles	2 60@ 2 65
"A"	2 75@ 2 90
Clear	0 00@ 3 25
Lath	2 25@ 2 30

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending Dec., 19, as reported by the Lumberman's Exchange :

RECEIPTS.

	Lumber.	Shingles.
1882	19,923,000	16,301,000
1881	19,788,000	17,020,000

FROM JANUARY 1 TO DECEMBER 6 INCLUSIVE.

RECEIPTS.

	Lumber.	Shingles.
1882	2,029,065,000	889,847,000
1881	1,849,772,000	815,416,000
Inc	179,293,000	74,431,000

LAKE RECEIPTS TO DEC. 7.

1882	1,778,811,000	798,007,000
1881	1,733,012,000	732,230,000

STOCK ON HAND NOV. 1.

	1882.	1881.	1880.
Lumber	706,625,450	599,525,483	553,459,941
Shingles	278,158,150	249,960,400	190,798,000
Lath	63,527,227	44,156,792	57,005,630
Pickets	3,079,436	2,809,670	2,408,016
Cedar posts	150,835	211,297	50,783

OSWEGO, N. Y.

From Our Own Correspondent.

No particular change in quotations ; demand light, assortment good and prospects of a fair winter trade.

Three uppers	$42 00@45 00
Pickings	32 00@35 00
Fine, common	20 00@25 00
Common	14 00@16 00
Culls	11 00@13 00
Mill run lots	17 00@22 00
Sidings, selected, 1 inch	30 00@37 00
1¼ inch	30 00@37 00
Mill run, 1x10, 12 inch	16 00@21 00
selected	20 00@25 00
Strips, 1 and 1¼ inch mill run	14 00@18 00
" " " culls	10 00@13 00
1x6 selected for clapboards	25 00@35 00
Shingles, XXX, 18 inch, pine	0 00@ 4 30
XX, " "	3 00@ 3 20
XXX, 18 inch, cedar	3 40@ 3 90
XX " "	2 25@ 2 50
Lath	2 00@ 2 25

BUFFALO.

We quote cargo lots :—

Uppers	$46 00@48 00
Common	18 00@19 00
Culls	13 00@14 00

BOSTON.

The *Cotton Wool and Iron* of Dec. 9, says :—There is a good steady business doing for this season of the year, and the general tone of the market is moderately firm. The upward tendency of freights and the closing up of many channels of navigation are among the elements of steadiness in the situation. Pine, spruce and hemlock are in very fair demand and fully hold their own. Southern pine is in better inquiry in a schedule way. Floor boards and step plank are quite firmly held. Good hardwoods are selling well at fair prices, but the market for "culls" is a poor one.

CANADA PINE.

Selects, Dressed	$48 00@50 00
Shelving, Dressed, 1sts	40 00@42 00
" " 2nds	33 00@35 00
Dressed Shippers	27 00@29 00
Dressed Box	18 00@20 00
Sheathing, 1st quality	42 00@45 00
" 2nd "	34 00@35 00

ALBANY.

Quotations at the yards are as follows :—

Pine, clear, ℔ M	$57 00@64 00
Pine, fourths	57 00@59 00
Pine, selects	52 00@54 00
Pine, good box	22 00@35 00
Pine, 10-in. plank, each	00 42@00 45
Pine, 10-in. plank, culls, each	00 22@00 25
Pine boards, 10-in	00 28@00 32
Pine, 10-in. boards, culls	00 20@00 21
Pine, 10-in. boards, 16 ft., ℔ M	30 00@35 00
Pine, 12-in. boards, 16 ft	30 00@34 00
Pine, 12-in. boards, 13 ft	27 00@29 00
Pine, 1¼ in. siding, select	45 00@47 00
Pine, 1½-in. siding, common	18 00@20 00
Pine, 1-in. siding, select	45 00@47 00
Pine, inch siding, common	18 00@20 00
Spruce, boards, each	00 00@00 16
Spruce, plank, 1½-in., each	00 00@00 20
Spruce, plank, 2-in., each	00 00@00 30
Spruce, wall strips, each	00 12@00 12
Hemlock, boards, each	00 00@00 14
Hemlock, joist, 4x6, each	00 00@00 33
Hemlock, joist, 2½x4, each	00 00@00 14
Hemlock, wall strips, 2x4, each	00 00@00 11
Ash, good, ℔ M	40 00@43 00
Ash, second quality, ℔ M	25 00@30 00
Cherry, good, ℔ M	00 00@00 00
Cherry, common, ℔ M	25 00@35 00
Oak, good, ℔ M	40 00@43 00
Oak, second quality, ℔ M	20 00@25 00
Basswood, ℔ M	25 00@30 00
Hickory, ℔ M	40 00@40 00
Maple, Canada, ℔ M	28 00@30 00
Maple, American, per M	26 00@28 00
Chestnut, ℔ M	35 00@40 00
Shingles, shaved, pine, ℔ M	0 00@ 6 50
" 2nd quality	0 00@ 5 00
" extra, sawed, pine	0 00@ 5 00
" clear, "	0 00@ 3 60
" cedar, mixed	0 00@ 3 80
" cedar, XXX	0 00@ 4 00
" hemlock	0 00@ 2 50
Lath, hemlock, ℔ M	0 00@ 2 00
Lath, spruce, "	0 00@ 2 25
Lath, pine, "	0 00@ 2 50

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers	$45 00@46 00
Common	18 00@24 00
Culls	12 00@14 00

LONDON.

The *Timber Trades Journal* of Nov. 25th says :—There is a sensible diminution in the number of arrivals of timber-laden ships into London this week, but forty-seven will, no doubt, be considered quite a plentiful sprinkling as times go. There are six cargoes from British America, fourteen from Russian ports, and about the same number from Sweden, while Norway contributes a fair share. Steamers are now the chief wood carriers, as out of this forty-seven no less than thirty are steamships.

The difference between an open and a close winter will be the strengthening of prices or the reverse ; and though many experienced members of the trade are of the belief that values will not improve with the turn of the year, we confess to a leaning the other way as far as the large ports are concerned, and, should the winter be a hard one, it is quite likely values would temporarily return to the high standard at which they stood a couple of years ago.

Stocks are not inordinately large, and if trade revived a little the reductions made on them would soon alter the present state of affairs, though the knowledge that large stocks at the shipping ports will be forthcoming next year makes the trade place little confidence in any lasting improvement.

GLASGOW.

The *Timber Trades Journal* of Nov. 25th says :—The timber trade, so far as can be drawn from deliveries of goods from the depots where cargoes are stored at discharge discovers considerable activity, but not to a point that causes the market to take a decided rise in prices, showing that, notwithstanding the large consumption among our shipbuilders, stocks on hand have not fallen so extremely low as to produce strong competition at the public sales. In the case of mahogany, a very animuted sale of which we recently reported, it had to a great

extent been diverted to other markets, and the import here, as a whole, was much smaller than for many years.

There is an opening in this market for lower port birch; the last cargo offered met with spirited bidding, and was cleared out and the greater part is delivered.

Messrs. Allison, Cousland & Hamilton held an auction sale of American goods on 21st inst. as noted below. There was a fair attendance, but nothing transpired in the course of the sale to give the idea of a decided improvement in prices.

AUCTION SALE.

On 21st inst., at Glasgow, Messrs. Allison, Cousland & Hamilton, brokers :—

1st Ottawa yellow Pine deals—			
12 to 16 ft.	10×3	2s. 8d.	per c. ft.
9 " 16 "	7/10×3	2s. 1d.	"
Do. Ottawa yellow pine deal ends—			
3 to 5 ft.	7/20×3	1s. 10d.	"
2nd do. ends—			
6 to 8 ft.	7/24×3	1s. 7d.	"
3rd do deals—			
14 to 16 ft.	16/20×3	1s. 6½d.	"
16 ft.	11×3	1s. 3½d.	"
14 & 16 ft.	11×3	1s. 3d.	"
4th do. deals—			
10 to 16 ft.	11×3	1s. 1d.	"
New Brunswick yellow pine deals—			
9 to 16 ft.	7/15×3	11¾d.	"
Do. tamarac—			
10 to 16 ft	7/9×3	1s	"

LIVERPOOL.

The *Timber Trades Journal* of Nov. 25th says :—Up to the time of writing we have not had any public sales of whitewood, but on Thursday Messrs. A. F. & D. Mackay offer an attractive lot of deals, both pine and spruce, together with St. John, N.B., birch timber, &c.

The importation of spruce deals has been upon a more moderate scale during the past week, but we may naturally expect an increase during the next few days, as the wind has again gone around to the westward, and with the prevailing strong gales vessels may be expected to make rapid passages.

Up to the present time the stock in the yards is within a moderate compass, and as most of the orders that are being executed are taken from the quays, there will probably be no material increase at the end of the month, when the stocks are made up, and should the shippers in St. John, N. B., continue in their present determination not to pay the high rates of freight that have been current hitherto, we may possible see a rebound in prices. Birch timber continues in demand, and high prices have been paid for several parcels by private treaty, and by auction a lot of 657 logs of Dalhousie, now landing, was sold on Thursday last, by Messrs. Farnworth & Jardine, at their mahogany sale at the following prices :—

19 in. and upwards		deep 27d.	per ft.
18 and under 19 in.		" 22½d. to 23d.	"
17 "	18 "	" 21d. to 21½d.	"
16 "	17 "	" 20d.	"
15 "	16 "	" 19½d. to 19¾d.	"
14 "	15 "	" 18½d.	"
13 "	14 "	" 17d. to 17½d.	"
under 13 inches		" 17d.	"

SWEDEN.

The Stockholm correspondent of the *Timber Trades Journal* says :—The mild weather with which we have been hitherto favoured has now given place to frost and snow. The ports in the lower Gulf, such as Gefle and Soderhamn, having begun to be troubled with ice, we may fairly consider the shipping season as practically closed when the vessels now under loading get away.

As millowners are just on the eve of sending men into the woods to commence the winter's cutting, it will be well for them to look around at the state of stocks and markets abroad before finally deciding on the extent of the "cut." If they turn to the principal markets in Great Britain they will find little to induce them to make a heavy cut. The position of the trade in the English metropolis is sufficiently characterized by the late sale of the Bergwik goods, where 3rd and 4th quality red deals are said to have been disposed of, delivered in London, at little more than prices ruling for the same goods f.o.b. Soderhamn earlier in the season. The other three large ports for Swedish sawn wood viz., Hull, Grimsby, and West Hartlepool, report a somewhat better condition of things, but at each of these stocks are said to be much larger than last year. The great Belgian *entrepot*, Antwerp, is also supplied with more than an average quantity, while prospects in France are decidedly inferior to what they were a year ago, insomuch that it becomes daily more apparent that the pace at which public money has lately been spent on public works will have to be diminished if the credit of that country is to be upheld. At home here stocks are a full average, or are soon likely to be, if the arrangements for winter sawing are taken into calculation. Bearing the foregoing facts in mind I am decidedly of the opinion that only a very moderate cut of logs should be attempted in the interests of millowners for the winter 1882-3. Did I not hold the opinion that the consumption of Great Britain is likely to be large next season, the state of the market would warrant even stronger language than above.

BOOK-BINDING.

Our facilities for BOOK-BINDING enables us to execute every description of work as well as it can be done in the cities, and at current CITY PRICES.

Blank Books and **Account Books** of any size Ruled to any pattern desired, and bound in the most appropriate and durable manner.

Books taken out in parts, **Bibles, Works of Art, Illustrated Works, Music Books, Magazines, Perodicals** and **Newspapers** bound in any style desired.

Old Books, Albums, &c. Repaired and Rebound.

Maps, Pictures, &c. Mounted and Varnished.

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THREE FIRST PRIZES FOR BOOK-BINDING AT THE CENTRAL EXHIBITION.

{ TOKER & Co.

Printers, Bookbinders, &c., PETERBOROUGH, Ont.

MIDLAND, ONT.

ASHORE.—The *Free Press* says that the steam barge Tecumseh, loaded with 600,000 feet of lumber, went ashore on Saturday morning at Flat Point, near Victoria Harbor. A large number of men earned from 30 to 40 cents an hour unloading part of her cargo. She was pulled off by the tug Minnie Hall on Sunday, came to Midland, and left here Monday morning for Windsor.

THE CANADA PACIFIC RAILWAY.

The year now closing may be looked back upon with some satisfaction by the Canadian Pacific Railway Company. The track is now laid to a point 539 miles west of Winnipeg. Forty-seven miles more are graded, ready for track-laying. This will be completed by the end of the year. Beyond this point, that is to say on the other side of these 586 miles, some 15 miles have been graded in patches, and will be completely graded before spring. Beyond that again lie 45 miles of heavy work, cutting and fills, in the coulees that run from the Cypress Hills to the Saskatchewan. Upon this work Langdon, Sheppard & Co.'s men will be employed all winter. Thus, before the end of the year, the track will be put down within 60 miles of Leopold, the name of the town where the railroad crosses the Saskatchewan. But above and beyond this the line is permanently located ten miles westward of the river, and, saving revision, to Calgary, 190 miles westward of Leopold. From Calgary to the summit of the Rocky Mountains lies a stretch of 150 miles of exceedingly heavy work. This leaves 390 miles to be constructed next year, and apart from the natural difficulties that will hamper the construction men, their base of supplies, Winnipeg, will be just 390 miles farther off. But beyond any doubt the work will be done. The Syndicate has gone through harder times than those coming.

Since the beginning of the present year they have laid 435 miles of track on the main line, 115 miles on their Southwestern branch, 22 miles on the new branch to Selkirk, 60 miles of side tracks on the main line, three miles of side tracks on the Southwestern—a total of 635 miles of railroad. Nothing like this has been hitherto known in the annals of railroading. Mr. Van Horne and Mr. Egan have accomplished a task which, at no remote period, would have been regarded as impossible.

Track laying will be finished on the C. P. R. Southwestern branch to Manitoba City, Pembina Mountain, 101 miles from Winnipeg, today, Dec. 5th. Mixed trains will henceforth be run from Winnipeg to Gretna and return, on Mondays. On Tuesdays and Fridays mixed trains will be run to Pembina Mountain, returning on Wednesdays and Saturdays.

The operations of the Syndicate from the first have been marked by extraordinary energy, and next year they purpose even to outstrip the wonderful push that has marked their work since they took hold of it a year and a half ago. Mr. Stephen and his associates do not admire more thoroughly than the people of Winnipeg the masterly manner in which Mr. Van Horne and Mr. Egan have shouldered and are carrying the colossal burden assumed by the Syndicate. —*Winnipeg Times.*

JONES & SON,

Wholesale Lumber & Timber Dealers

39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut

And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.

Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.

17

The Way Aurthur Looks At It.

The President has been considering the subject of forestry, and sums his conclusions up in his message as follows :—The condition of the forests of the country, and the wasteful manner in their destruction taking place, give cause for serious apprehension. Their action in protecting the earth's surface, in modifying the extremes of climate, and in sustaining the flow of springs and streams is not well understood, and their importance in relation to the growth and prosperity of the country cannot be safely disregarded. They are fast disappearing before destructive fires, and the legitimate requirements of our increasing population, and their total extinction cannot be long delayed unless better methods than now prevail shall be adopted for their protection and cultivation. The attention of congress is invited to the necessity of additional legislation to secure the preservation of the valuable forests still remaining on the public domain, especially in the extreme western states and territories, where the necessity for their protection is greater than in less mountainous regions, and where the prevailing dryness of the climate renders their restoration, if they are once destroyed, well-nigh impossible.—*Northwestern Lumberman.*

THE Winnipeg *Times* says :—Sales at present cannot compare with those of last month. There is a good stock on hand at present of all grades of lumber and not much likelihood of much decrease of stock until sleighing sets in. The import trade by rail is very small just now owing to the large stocks on hand. The association prices remain firm.

17 YEARS' EXPERIENCE.

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OFFICES, 32 KING STREET EAST,

TORONTO ONT.

All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward. 1y15

BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of trade, for the month of Oct., and for the first ten months of the year :—

MONTH ENDED 31ST OCT., 1882.

	Quantity. Loads.	Value. £.
Timber (Hewn).		
Russia	36,756	78,206
Sweden and Norway	59,380	99,582
Germany	35,029	88,578
United States	5,925	23,751
British India	5,125	69,881
British North America	49,937	247,502
Other Countries	20,853	23,526
Total	210,005	630,956
Timber (Sawn or Split, Planed or Dressed).		
Russia	165,076	421,467
weden and Norway	198,220	475,998
British North America	161,785	450,874
Other Countries	16,010	50,753
Total	541,091	1,399,092
Staves, (all sizes)	14,291	79,638
Mahogany (tons)	9,394	97,558
Total of Hewn and Sawn	751,096	2,030,048

TEN MONTHS ENDED 31ST OCT., 1882.

Timber (Hewn).		
Russia	264,458	553,599
Sweden and Norway	550,488	872,880
Germany	260,021	744,953
United States	146,573	501,996
British India	35,789	454,993
British North America	201,124	962,681
Other Countries	287,835	367,615
Total	1,746,288	4,458,667
Timber (Sawn or Split, Planed or Dressed).		
Russia	1,085,186	2,741,748
Sweden and Norway	1,469,501	3,695,223
British North America	788,327	2,081,425
Other Countries	305,496	974,694
Total	3,648,510	9,493,090
Staves (all sizes)	109,258	554,085
Mahogany (tons)	31,069	302,838
Total of Hewn and Sawn	5,394,798	13,951,757

NORTH OF KINGSTON.

The Kingston *Whig* says :—A gentlemen from the rear of this county was asked last evening for information in regard to the lumbering operations, and reported that the work now in progress was really enormous. There has not been such activity for a long time, and the cut promises to be the largest for many years. The principal operations are in the townships of Abinger, Denbigh, Anglesea, Effingham and Barrie, and these are conducted by the Gilmours, HcLaren and Caldwell. There are dozens of shanties and all are crowded with men, whose wages range from $18 to $26 per month. A few receive more. When the speaker left the township of Barrie there had been but little snow. To make business hum plenty of the beautiful is required. Some of the lakes have been frozen over, and the ice upon them is capable of bearing them. It is wonderful the quantity of supplies that goes to the camp, including cattle, hay and food. The logs will be drawn to the lakes and streams and in the spring floated to the mills. If the winter be favorable the timber cut must be very large.

A Florida Enterprise.

The *Northwestern Lumberman* says :—An English company, called the Florida Agricultural Company, of London. has purchased 27,000 acres of land in the southern part of Orange county, Texas, of the Disston Company. The lands are said to be among the most valuable timber, sugar and fruit lands in the state. The company will at once erect saw mills and begin to plant out fruit trees. As soon as the lands are in shape, the sugar interest will be developed to its fullest extent. Great expectations of English settlement are based on this experiment.

Trees on the French National Roads.

Statistics have been published by the French Department of Public Works relative to the planting of trees along the high-roads of the country. The total length of the Routes Nationales is 39,938,126 meters, of which 23,731,928 meters may be bordered with trees. Of this distance, 14,335,311 meters are planted, while 9,496,617 meters remain to be done. The number of trees used to form the welcome avenues is 2,601,698.

LOGGING RAILWAY.

Logging by rail instead of hauling by sleds to the different streams, is becoming fashionable. The Shell Lake Lumber company have eight miles of railway, which brings the logs to their mill. On the Eau Claire river, Messrs. R. M. Forsman and W. T. Price are constructing seven miles, on which they intend hauling to that stream 70,000,000 feet, most of which is to be cut into long timber. N. C. Foster, of Fairchild, is also building a logging railway which will bring stock from the woods to his mill. His track will connect with the Forsman and Price one. And now comes the M. I. Company and C. L. & B. Company, with their intended line from the Chippewa river near Amacon Lake, six miles above Big Bend, into the timber recently purchased from the Cornell University. The last lot embraces about 300,000,000 feet, and the haul will be seven miles. These corporations consider it cheaper to do this than to make Potato Creek, Soft Maple branches, etc., safe for log driving purposes, besides making it certain that the logs will get into the main river. It certainly looks as if the old modes of logging would soon be superceded by the rail.—*Chippewa Herald.*

Sale of Timber Limits Postponed.

The following appears in the *Globe* of Nov. the 30th :—This afternoon 970 square miles of timber limits situated in the Province of Quebec were put up at auction in Ottawa, in behalf of Bronson & Weston and Levi Young. Before the sale was proceeded with a proteet was entered by Mrs. Bingham and W. McD. Dawson, each of whom claim the ownership of one-quarter of the limits. Mr. Gormully, the vendors' solicitor, disregarded the protest, and said plenty of time had been given to protestants to enter an injunction in Chancery if they wished to do so and he ordered the sale to be proceeded with. The nine hundred and seventy miles which were offered *en bloc* are estimated to be worth $500,000. The sale was further postponed till the 21st December.

New Zealand Timber.

According to Mr. Gilderoy Wells Griffin, who has been United States Consul at Auckland, New Zealand, since 1879, America imports from New Zealand and the Australian colonies nearly as much wood as she herself raises, but Kauri gum is the only thing which is sent to the States direct from New Zealand. About $1,000,000 worth of it are shipped annually. The gum exudes from a large tree known as the Kauri pine, which is about 30 feet in circumference, and grows to the height of eighty feet. It is a curious fact that this tree grows in no other part of the world than the province of Auckland. The gum is generally found in a fossilized state around the roots of trees in extinct forests, and has to be dug for.

Free Canals.

The *Lumberman's Gazette* says :—Free canals, which has just been voted in New York state, will not be entirely devoid of significance to the lumber industry on the Saginaw river, and to other portions of the Saginaw Valley, as its tendency will be directly to lessen the price of the Saginaw valley product delivered at the eastern markets, without injury to the manufacturer. The removal of tolls from the New York canals means more certain and increased demand for Michigan lumber.

THE Norway correspondent of the *Timber Trades Journal* says :—Altogether it is very satisfactory to note from the above statistics that the forest produce of this country is turned to better account year by year. I have often heard elderly lumbermen express their dismay at the small dimensions of the logs floated down the rivers now-a-day compared to former times, and these old folks have generally concluded with a sad prediction, to the effect that before long there would be no timber left large enough to turn into a useful article of export. They may perhaps derive some consolation from the reflection that matches and pulp can be made out of whatever is to small for converting into deals, battens, and boards. The great thing is this, that much of what was formerly left to rot in the forests can now be made use of.

CHEMICAL INJECTION OF RAILROAD TIES.

Some interesting data are published in the German papers, showing the relative value of different methods of injecting railroad ties. On the route from Hanover and Cologne to Minden, for example, the pine ties injected with chloride of zinc, required a renewal of 21 per cent. after a lapse of 21 years ; beech ties, injected with creosote, required a renewal of 46 per cent. after 22 years' wear ; oak ties, injected with chloride of zinc, required renewal to the extent of about 21 per cent. after 17 years, while the same kind of ties, not injected, necessitated fully 49 per cent. of renewals. The conditions of all these cases were very favorable for reliable tests, and the road-bed was good, permitting of easy desication ; the unrenewed ties showed, on cutting, that they were in condition of perfect health. On another road, where the oak ties were not injected, as large a proportion as 74.48 per cent. had to be renewed after 12 years ; the same description of ties, injected with chloride of zinc, required only 3.29 per cent. renewals after seven years, while similar ties injected with creosote involved, after six years, but 0.09 per cent.—*Lumberman's Gazette.*

NEW BRUNSWICK EXPORTS.

The correspondent of the Montreal *Gazette* writes from St. John, N. B., on Nov. 27 :—The reports of the Custom Houses on the lumber shipments of the season, are published, and it appears that there is a considerable falling off in the exports of the North Shore ports as compared with those of last year. This is, however, solely because of the scarcity of vessels during the greater part of the season. The spring fleet instead of returning for second cargoes, found freights elsewhere. Rates rose very considerable at the time of the Egyptian war, and the steamers that were expected failed to come. There was great competition for all the vessels that did come, and lumber freights reached a higher figure than for some time previously. Deals are piled up in a mountainous manner, and the stock for spring shipments is larger than it has been for years. There will, doubtless, be a big fleet, including a much larger percentage of steamers, here for deals at the opening of navigation in the Gulf ports.

NORTH WESTERN TIMBER.

A reporter of the Winnipeg *Times* obtained the following information from Mr. Thos. Cowan, of the Indian Department, who has just returned from a survey of Indian Reserves in the far west. Mr. Cowan said that there was much being done in the lumbering business in the localities visited by him. There is a saw mill in operation at Calgarry, and another on Mill Creek. In connection with the latter there is a grist mill. The timber is mostly spruce, but there is also considerable pine. The spruce is large, in some cases quite as large as in any of the eastern provinces, "From what I saw and heard I judge there is timber enough to meet the demands of all the towns and cities that may grow in the vicinity for many years to come. I heard that there are great quantities of pine of splendid growth up in the Crowsnest Pass, but did not have an opportunity of visiting the locality."

A. CHARD, of Sterling, in a recent letter states that he met with an accident some time ago, by which one of his knees was severely injured. A few applicatiens of Hagyard's Yellow Oil afforded immediate and complete relief.

UNDOUBTEDLY the best medicine to keep on hand for Colds, Coughs, Asthma, Bronchitis and Pulmonary troubles generally, is Hagyard's Pectoral Balsam. It will not cure Consumption, but it will cure those troublesome conditions leading thereto.

DAVY & CLARK, Druggists, Renfrew, date of June 3rd, write :—"Burdock Blood Bitters, though comparatively a new preparation, has taken the lead in this locality as a blood purifier, our sales of it being equal to that of all other medicines used for the purpose during the last year."

A BIG INVESTMENT.—G. M. Everest, of Forest, states that Hagyard's Pectoral Balsam still holds its own amongst the many cough medicines in the market. He says that he has sold it for nearly sixteen years, and the sales are steadily increasing. One family has purchased over 50 bottles for various members and friends.

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FOR
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Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,
Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

No Preparation on earth equals ST. JACOBS OIL as a *safe, sure, simple* and *cheap* External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

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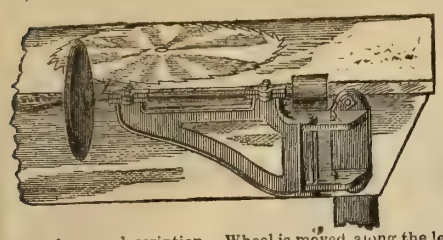

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of $100. Send for circulars to

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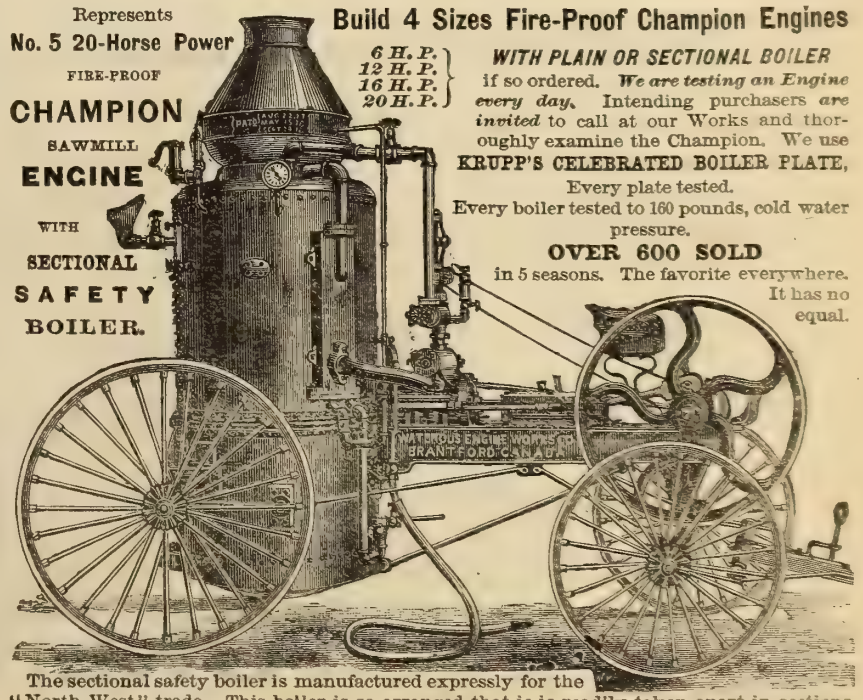

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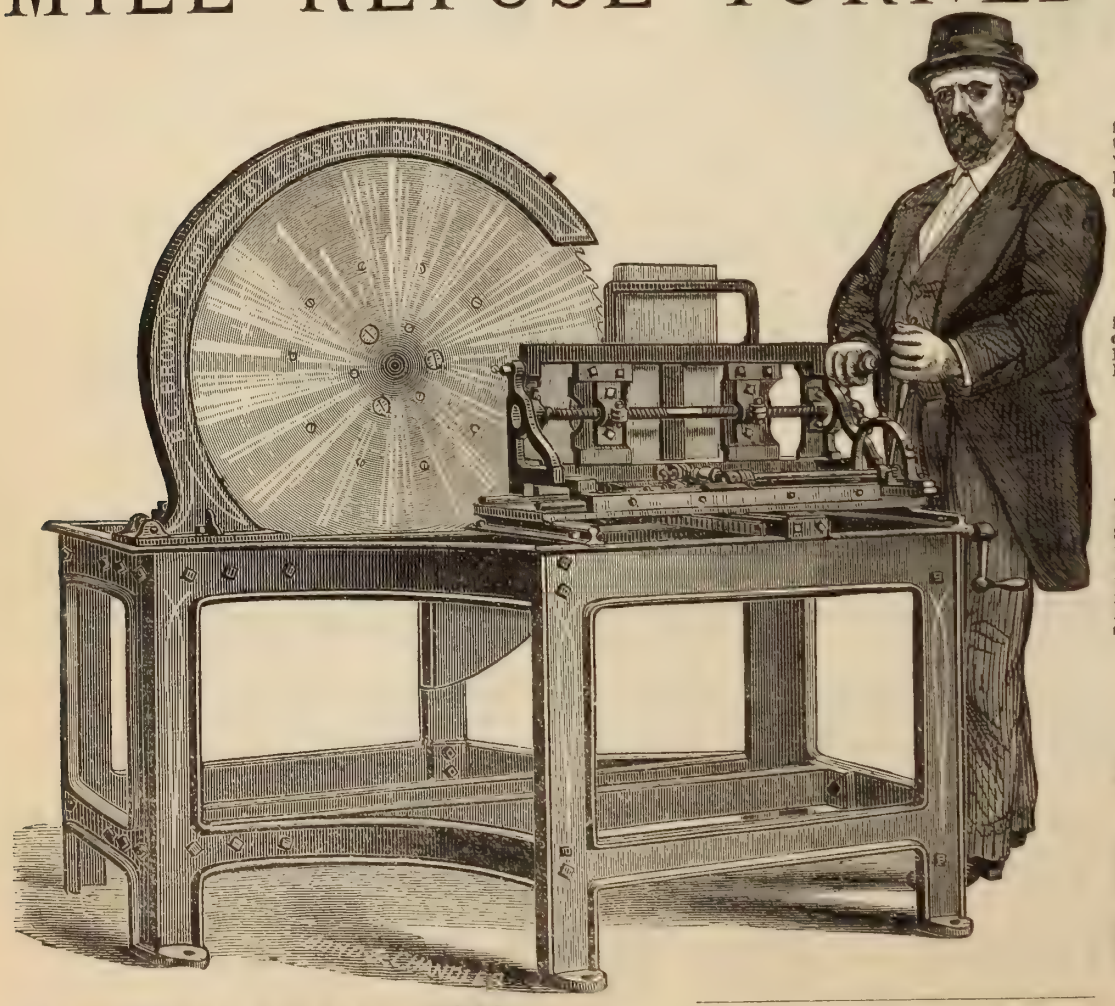

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